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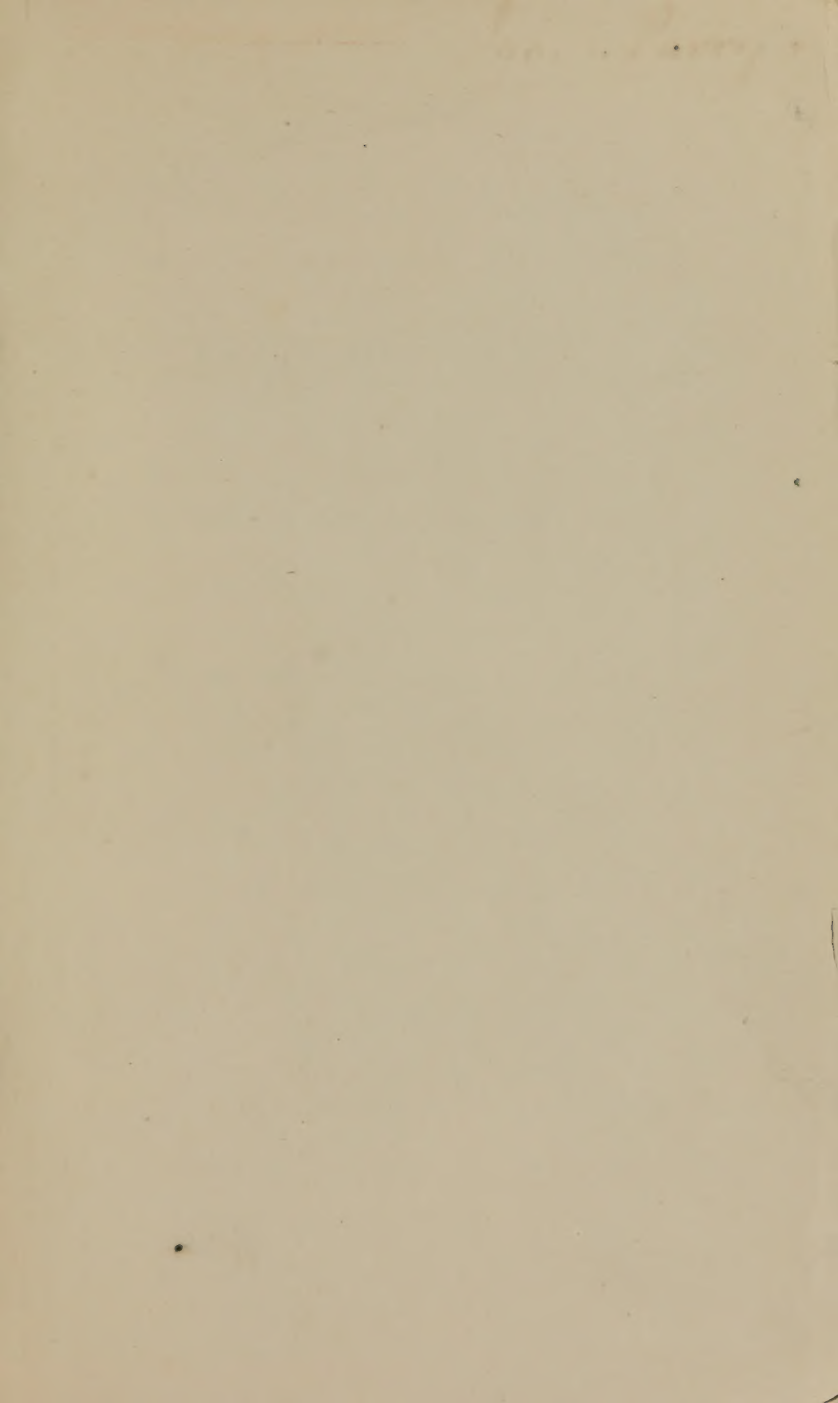
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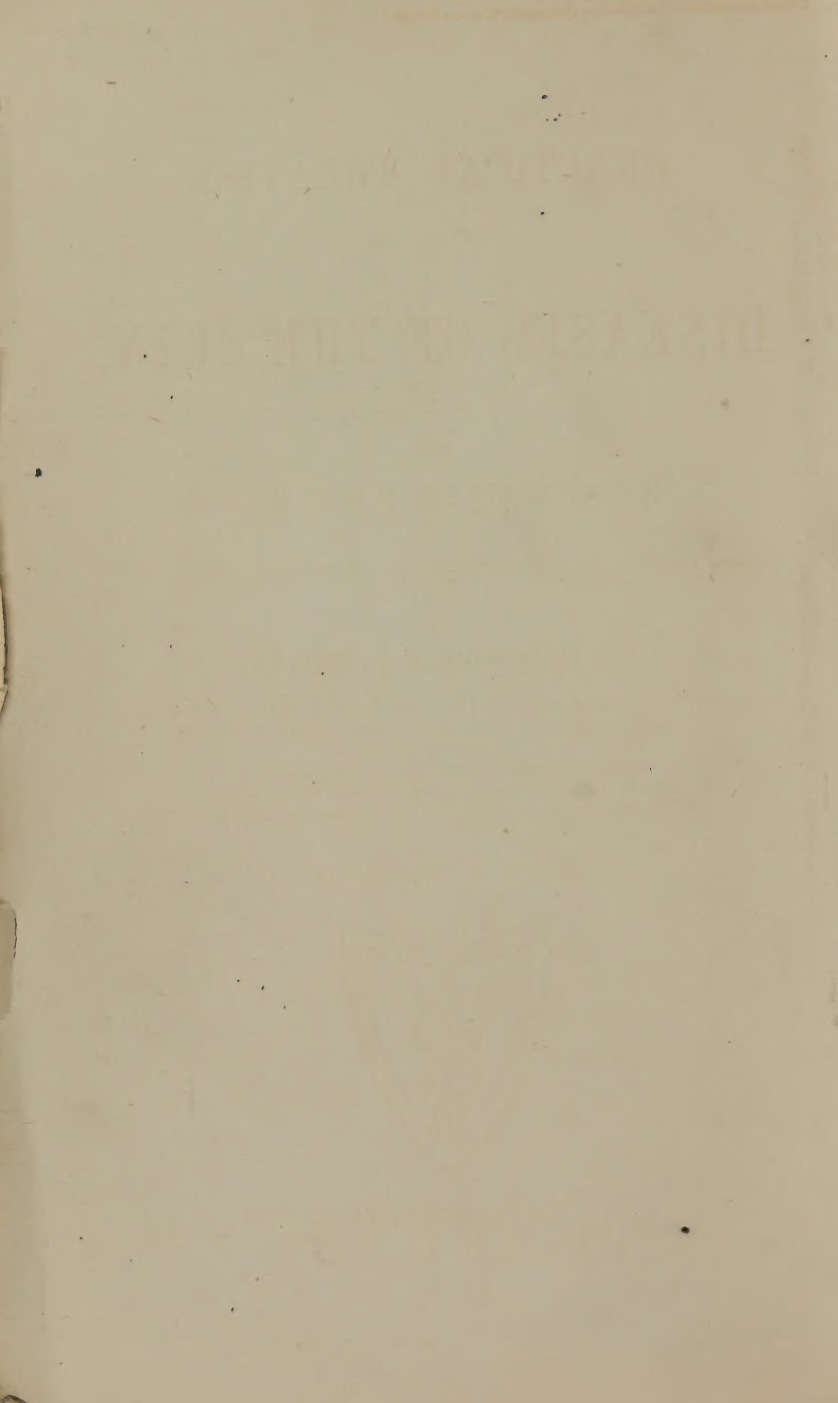
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A

PRACTICAL TREATISE

ON

DISEASES OF THE SKIN.

BY
J. MOORE NELIGAN, M.D., M.R.I.A., &C.

FIFTH AMERICAN FROM THE SECOND REVISED AND ENLARGED DUBLIN EDITION.

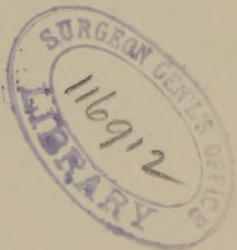
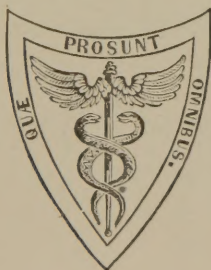
BY
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AND SOMETIME ONE OF THE PHYSICIANS TO THE CORK FEVER HOSPITAL.

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TO
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DOCTOR IN PHYSIC;
PRESIDENT OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS
IN IRELAND.

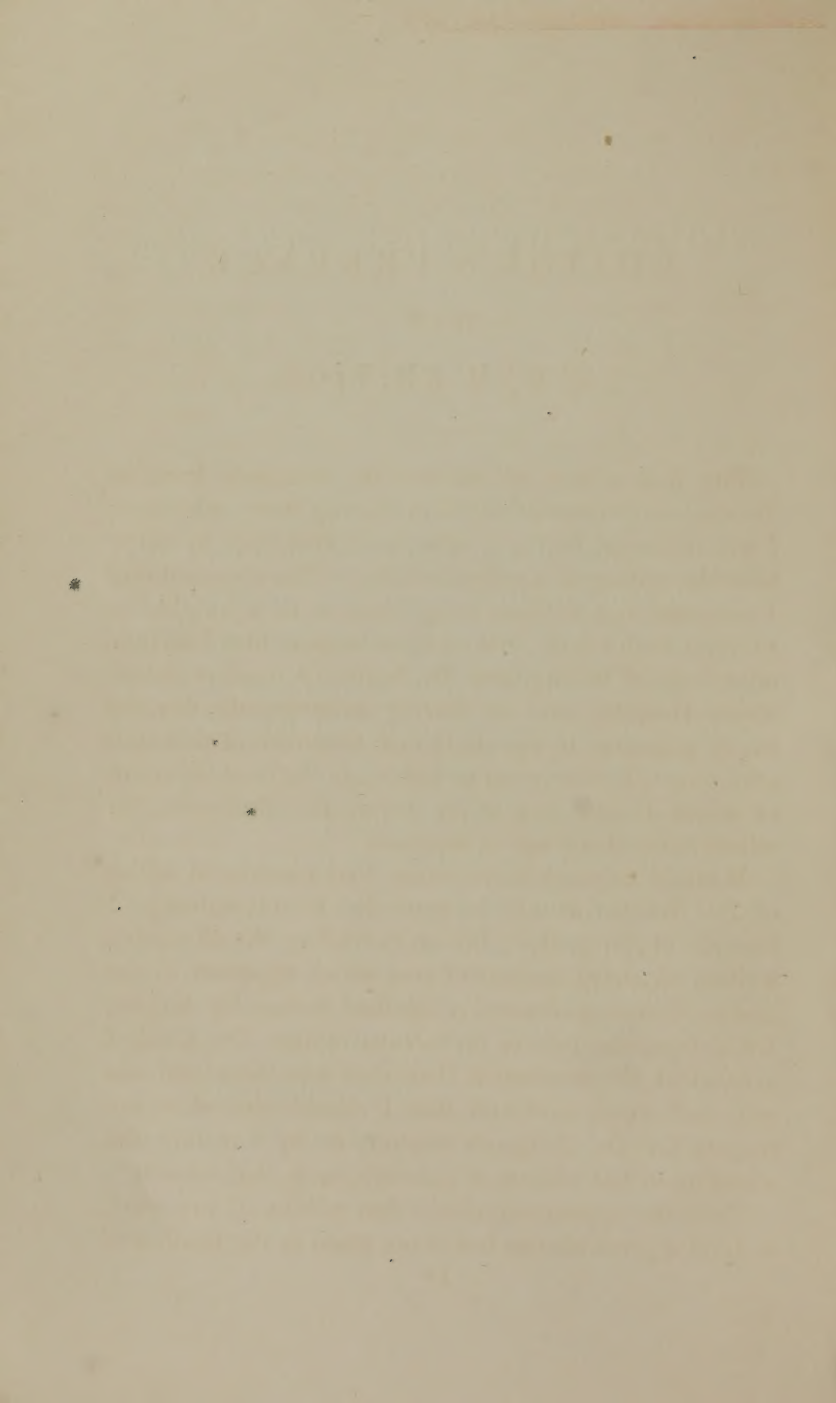
SIR,

To none can this Volume with more propriety be dedicated than to you, who preside over the College of which the late Dr. Neligan was sometime Vice-President, and long a distinguished Member. Allow me, in some small degree, to acknowledge that high personal and professional worth, and that exemplary regard for the honor and usefulness of what you yourself have called "our God-like profession," which have placed you in the highest seat of our ancient and learned Society, and added your name to the long and honorable roll of Presidents of the College of "the beloved Physician."

Believe me to be, SIR,

Your faithful Servant,

T. W. BELCHER.



EDITOR'S PREFACE

TO THE

SECOND EDITION.

THE first edition of the late Dr. Neligan's *Practical Treatise on Diseases of the Skin* having been exhausted, I was requested by the publishers of that work to undertake the editing of a second edition. This responsibility I accepted, not without misgivings as to my ability to perform such a task; but on consideration that I had the advantage of having been Dr. Neligan's pupil at Jervis-street Hospital, and of having subsequently devoted much attention to the study and treatment of this class of diseases, I determined to undertake the task, the result of which I now beg to set before the Profession, for whom alone this work is designed.

It might perhaps be expected that a memorial notice of Dr. Neligan should be appended to this volume. I thought of doing this; but on re-reading the admirably written obituary memoir of him which appeared in the *Dublin Quarterly Journal of Medical Science*, for August, 1863, from the pen of its talented editor, Dr. Kidd, I arrived at the conclusion that what was there said was well and wisely said, and that I should best show my respect for Dr. Neligan's reputation by directing the attention of the readers of this volume to that memoir.

Since the appearance of the first edition of this work in 1852 a great change has taken place in the relation of

Dermatology to Medicine. Numerous works of value have been published; important discoveries have been made, and papers without number, on isolated cases or classes of skin disease, have continually issued from the medical press. Thus the subject has taken a high professional rank, and has been completely rescued from the shade under which it had fallen, from its having been made a ready means of ill-gotten gain by the quack and the impostor.

The present edition contains the substance, in most cases the very words, of the edition of 1852, and from it no opinion, statement, recommendation, or fact, recorded by Dr. Neligan, has been omitted. The whole has undergone a careful revision, and has been enlarged by the addition of 100 pages. The discoveries of medical science, and the opinions of the best authorities, from 1852 to the present month, have been added under their several heads; and the result of the Editor's experience has also been inserted where it particularly confirmed or differed from that of Dr. Neligan.

The phraseology employed requires explanation. Wherever the first person singular is employed the reader will understand that Dr. Neligan speaks, and that I agree with, or, unless otherwise expressed in the text or in a note, see no reason to differ from him. Editorial remarks are given in the third person singular, while facts and the opinions of others are simply given as such. Wherever I have been able to trace an authority for a statement of Dr. Neligan's I have inserted it; and, as far as lay in my power, I have invariably done so with my own records of facts, and of the opinions of others.

The following additions are now made to this work:—

1. A copious Table of Contents.
2. Considerable additions to Chapter I, on Classifica-

tion; chiefly as regards the modern nosologies of Hardy, Hebra, Buchanan, and others.

3. Derivations and meanings of technical terms; and their synonyms.

4. References to Dr. Neligan's *Atlas of Cutaneous Diseases*, as also to the plates of Cazenave and Hebra.

5. References to Professor Macnamara's Sixth Edition of Dr. Neligan's *Materia Medica*.

6. Quotations from, and references to authorities in every case, particularly where the full description of the subject is excluded by reason of the practical nature of the work.

7. Explanations of the peculiar modes of treatment, and in some cases the prescriptions, of the best home and foreign dermatologists.

8. An entire translation of the numerous prescriptions in the first edition, with those now added, into the technical language of the *British Pharmacopœia*.

9. A Posological Table of the most important, and mostly poisonous, medicines used in the treatment of cutaneous diseases.

10. A copious Bibliographical Index of the chief authorities quoted.

Notices of the following, among other diseases, are now for the first time added: Rubeola, Scarlatina, Variola and its allies, Furunculus, Anthrax, Pustula Maligna, Lepra Hebræorum; a full account of Elephantiasis, Morphie, Framboesia, Morbus Tauricus, Aleppo Evil, Ngerengere, Pellagra, Morbus Addisonii.

The Chapter on Parasitic Diseases, or Dermatophytæ, has been revised, and considerably added to, as also that on Diseases of the Hair and Nails, and that on Therapeutics.

The General Index has been enlarged and re-written.

A prominent feature in the enlargement is the addition of the cutaneo-nosological synonyms used by ancient and modern writers in our own and in foreign countries.

The chief aim throughout has been to make this book thoroughly fit for the practical man. This has led to necessary retrenchment in the scientific departments, and some will, doubtless, consider this a defect; but I have endeavored to compensate for it by the additions just enumerated, particularly by the fair and honest system of quoting authorities, and giving numerous references for minute information. In this way I trust the work will not only suit the busy practitioner, the man of one book (on this subject), for whom this volume is primarily designed, but also the industrious medical student, the practitioner "getting up" a paper for a medical society, and the Lecturer, for ready reference and saving of valuable time. Most of the books and papers quoted will be found in our public libraries.

My best acknowledgments are due, and are hereby given, to the hundreds of writers of whose works I have availed myself. Many of these cannot be here particularized, but I cannot omit to note specially the admirable works of Mr. Erasmus Wilson and Dr. Tilbury Fox, and the elaborate and learned reviews which appeared in the *Medical Times and Gazette*, and in the *British and Foreign Medical and Chirurgical Review* for the present year, which are respectively entitled *Dermatology*, and *Recent Researches on Scabies*.

I must further thank Messrs. Fannin & Co., the publishers, for their compliance with my suggestions about this edition, and Mr. J. B. Falconer, B. A., for his careful and scholarly revision of the proof sheets.

T. W. B.

DR. NELIGAN'S

PREFACE TO THE FIRST EDITION.

IN submitting the observations contained in the following pages to the Profession, the Author has been influenced chiefly by a desire to offer, as an aid to the diagnosis and treatment of an important class of diseases, the results of an experience acquired during several years' special attention to the study of cutaneous eruptions. Of late years the British Medical press has abounded with monographs on other special affections, but few have been published on those of the skin; he has, therefore, thought that a concise practical Treatise on them might find favor with the Profession.

As regards the plan adopted in the construction of the work, the only points requiring notice are the omission of the details of cases which might be cited to prove the correctness of the views propounded, and the slight reference to other writers on the same subject: for both the only apology he has to offer is his anxious desire to condense the inquiry he proposed to himself within as narrow limits as possible, being fully aware "how great an evil a great book" is to the physician busily engaged in practice.

17 MERRION SQUARE, EAST, DUBLIN,
June 1, 1852.

TO THE READER.

In order to the better understanding of this book, the reader is recommended to peruse the Editor's and the Author's Prefaces; to examine the Table of Contents, the Bibliographical Index, and also the General Index of Words and Matters.

In quoting any authority recourse should be had to the Bibliographical Index, in which, for the most part, will be found the full titles of books and papers noted in the text.

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DISEASES OF THE SKIN.

CHAPTER I.

CLASSIFICATION.

THERE is no class of diseases which should interest the practitioner or student to a greater degree than those of the skin, and they are especially deserving of study in consequence of the difficulties which attend their diagnosis, and the obstinacy with which they resist most of the remedial measures that have been hitherto proposed for their treatment. It is only by prolonged practical experience, acquired after a careful and properly directed study of their varied characters, and an investigation into their peculiar pathology, that even a moderate degree of knowledge of them can be obtained. In their early stages they are often simple and uncomplicated in form, and, consequently, easy to be recognized; but when they become chronic they are generally so changed and altered that it is often very difficult to discover to what special class or order the peculiar form of disease under observation may belong.

The skin, which covers the entire of the external surface of the body, has many uses in the animal economy; and therefore a diseased condition of it is attended, not alone with vast inconvenience to the person affected, but is also usually accompanied by a greater or less amount of derangement of the health generally. It is the organ or medium of touch; serves for the defence of the muscles, bones, bloodvessels, and nerves, placed beneath it; is, moreover, the organ of absorption and excretion; and, as some recent physiological writers have well observed,

agrees, in many of its functions and properties, with the mucous membrane of which it is manifestly a continuation—the mucous membrane protecting the internal parts of the body, while the skin protects those that are external: there is consequently a remarkable agreement between them. In deranged conditions of the skin, the mucous membrane becomes more or less engaged; and, in diseases which affect the mucous membrane, the functions of the skin, as regards absorption and excretion, are also affected to a greater or less degree.

Owing to the great obscurity which so long enveloped the study of this class of diseases, and the late period in the history of medicine at which any attempt was made to classify them at all regularly, a great deal is left for the inquirer, even of the present day, to clear up. Yet we have abundant evidence, in the writings of the Jewish, the Egyptian, the Arabian, the Greek, and the Roman legislators and physicians, of their existence from the remotest antiquity; and that they were very numerous, often occurring as scourges of mankind, is easily proved by a reference to the Leprosy of the Jews, and the Elephantiasis of the Greeks and of the Arabians. Of late, much has been expected from the employment of the microscope in discovering the exact nature of diseases of the skin, but in this expectation we have, as yet, been to some extent disappointed. It is true, that by its aid much valuable information has been gained, as to the normal structure of the skin, yet but little addition has been hitherto made thereby to our knowledge of its diseased conditions, more particularly with reference to their diagnosis and treatment, as based on minute anatomy. There is one important fact, however, which has been attained by the use of the microscope in the investigation of the nature of diseases of the skin, namely, the discovery that, in certain affections, a vegetable production—a cryptogamic plant—is present on the cutaneous surface, and is evidently intimately connected with their true pathology. A difference of opinion exists as to whether these vegetable growths are the cause or the consequence of the disease in which they have been found to occur; but there can be no doubt—now that nearly

all dermatologists admit the truth of the discovery, and consequently believe in the existence of these vegetable growths—that a new classification, containing a group or order, of which the presence of these fungi will form the essential character, must be constructed.

An important point of view in which diseases of the skin must be regarded, and one that adds much to their interest, is the effect they produce upon the system generally. We sometimes find that in persons who have labored even for a long time under these affections, but little constitutional derangement is, in many cases, caused by them—so little, indeed, that it has often been doubted whether the existence of an affection of the skin, in a chronic form, tends to shorten life, or should be taken into account in coming to a conclusion as to eligibility, in a medical examination, for assurance. For my own part, I believe that as long as the individual remains unaffected with any acute or inflammatory affection, the existence of a skin disease will not, in any respect, diminish the average chances of longevity; yet I have no doubt but that a person laboring under any general cutaneous affection, the existence of which unquestionably deranges the functions of this extensive membrane, must be more or less liable to have the symptoms of an ordinary acute disease, such as fever or any of the internal inflammations, aggravated, and the treatment rendered more difficult and complicated by its presence. Thus, although a chronic affection of the skin may not directly tend to shorten life, yet it may do so indirectly. As, however, these various points will be more fully considered in speaking of each eruption individually, I shall not dwell on them at present, but proceed to describe the classification of diseases of the skin which I propose to adopt.

No subject in the study of medicine has created more difficulty, or for a longer period tended to retard its advancement, than that of nosological arrangements. It was at one time believed to be impossible to understand the nature of diseases, or their proper treatment, without an intimate knowledge having been previously acquired of their classification, and we therefore find that all the

writers on medicine of the last, and of the commencement of the present century, sedulously devoted themselves to devise new systems, each more complicated than the other. As regards diseases generally, it is now agreed by all that the less complicated and more simple the classification under which they are arranged, for the purpose of description or of teaching, the more advantageous is it for the acquirement of a knowledge of them; and few, therefore, take the trouble of making themselves acquainted with the labored systems of Cullen, Sauvages, Mason Good, or the many nosologists of their day. Simplicity, I need scarcely say, is of equal advantage in classifying any special set of diseases, as those of the skin; yet even in our own time it seems to me to be strangely overlooked by dermatologists; writer after writer, impelled, as it were, by an ambition to devise something novel, propounds a new classification, careless how complicated and difficult of being comprehended it may be, provided only it differs from those which preceded.

As in the arrangement of objects of natural history, so in that of diseases, a classification may be either *artificial* or *natural*; the former being based on external appearances, or those which come directly under the cognizance of our senses, without any respect to intimate nature, structure, or properties; while the latter has especial regard to natural qualities, as a bond of affinity. In addition to these two, a third has been adopted by some writers on diseases of the skin, which may be called a *local* or *regional* arrangement—that is, one in which they are placed in groups, dependent on the part of the body upon which they are seated; but, of course, in this system, regard must also be had to the individual character and form of the various eruptions.

Of the many systems of classification of diseases of the skin which have been, from time to time, proposed, two especially of those of the earlier writers are worthy of notice, not alone as being the first which had any pretensions to accuracy or completeness, but as forming, to a certain extent, the basis of most of those which have been since propounded—I allude to the *artificial* system of

Willan, and the *natural* one of Alibert. Although Willan adopted, as the groundwork of his classification, an arrangement originally proposed by Plenck—following out the idea of Riolanus put forth nearly a century previously—of placing diseases of the skin in groups, according to their form and appearances, yet, from the accuracy and appropriateness of his nomenclature, which is that now almost universally employed, and the clearness with which he defined the leading features of his general divisions or orders, it is correctly regarded as being the first important step made to the correct understanding of diseases of the skin. Alibert, in the first instance, following Turner, an Englishman, who was himself preceded by Mercurialis, adopted a *regional* classification, dividing all eruptions into two classes, as they were situated on the head or on the trunk of the body; but this he soon abandoned for a *natural* system, which, though grandly conceived, did not survive its author, being found too complicated and difficult of application when attempted to be reduced to practice.¹

In Willan's system, cutaneous diseases are divided into eight orders, characterized by the form of the eruption, viz:—

Papulæ.	Vesiculæ.
Squamæ.	Pustulæ.
Exanthemata.	Tubercula.
Bullæ.	Maculæ.

The distinctive features of the eruptions, by which these orders are characterized, he defined as follows; and here I may again remark that his nomenclature and definitions are still in use, and generally recognized as correct:—

1. *Papula* (Pimple).—A very small and acuminate

¹ Lorry's classification of 1777 was based on the presumed nature of the affections, and was primarily divided into *maladies arising from external and from internal causes*. Respecting the *natural* and *artificial* systems, M. Hardy observes: "De même que la classification de Plenck est le point de départ des classifications basées sur les lésions anatomiques, de même Lorry doit être regardé comme le premier auteur des classifications basées sur la nature des maladies." — *Leçons sur les Maladies de la Peau*. Partie I. (1860) p. 9.

elevation of the cuticle, with an inflamed base, not containing a fluid, nor tending to suppuration.

2. *Squama* (Scale).—A lamina of morbid cuticle, hard, thickened, whitish, and opaque.

3. *Exanthema* (Rash).—Red patches on the skin, variously figured, in general confluent, and diffused irregularly over the body, leaving interstices of a natural color.

4. *Bulla* (Bleb).—A large portion of the cuticle detached from the skin by the interposition of a transparent, watery fluid.

5. *Vesicula* (Vesicle).—A small, orbicular elevation of the cuticle, containing lymph, which is sometimes clear and colorless, but often opaque and whitish, or pearl-colored.

6. *Pustula* (Pustule).—An elevation of the cuticle, with an inflamed base, containing pus.

7. *Tuberculum* (Tubercle).—A small, hard, superficial tumor, circumscribed and permanent, or proceeding very slowly to suppuration.

8. *Macula* (Stain).—A permanent discoloration of some portion of the skin, often with a change of its texture, but not connected with any disorder of the constitution.

As already noted, this classification, first published in 1798, will be seen to have been a modification of that of Plenck, first published in 1776, as follows:—

1. Maculæ.
2. Pustulæ.
3. Vesiculæ.
4. Bullæ.
5. Papulæ.
6. Crustæ.
7. Squamæ.
8. Callositates.
9. Excrescentiæ Cutaneæ.
10. Ulcera Cutanea.
11. Vulnera Cutanea.
12. Insecta Cutanea.
13. Morbi Unguium.
14. Morbi Pilorum.

Alibert, in his natural arrangement, considers cutaneous diseases to resemble a tree which he terms *l'arbre des dermatoses*, and the branches of which constitute the various divisions or groups, which are subdivided into genera. His primary groups, which are twelve in number, he designates as follows:—

Dermatoses	Eczemateuses.	Dermatoses	Véroleuses.
"	Exanthema-	"	Strumeuses.
"	teuses.	"	Scabieuses.
"	Teigneuses.	"	Hémateuses.
"	Dartreuses.	"	Dyschroma-
"	Cancéreuses.	"	teuses.
"	Lépreuses.	"	Hétéromorphes.

Bielt, the immediate and most celebrated pupil of Alibert, soon perceiving the difficulties which the complicated system of his master, though based on the natural affinities of the various eruptions of the skin, threw in the way of their successful diagnosis, forsook it for that of Willan, which he modified and so far improved that all the artificial systems of classification which have been proposed since his time include the changes made by him.

Viewed abstractedly, it is manifest that a classification of diseases of the skin which, as a natural system is supposed to do, takes into account not merely the form but the essential nature and pathological characters of a cutaneous eruption, should possess many advantages, both practical and theoretical, over an artificial arrangement which takes cognizance merely of the alterations of the skin which cause the eruption, or, in other words, regards solely the apparent changes in the cutaneous structure of the part affected. Consequently, we find that most modern writers on the subject have bestowed their attention on the construction of a perfect *natural* system, but hitherto, in the Editor's opinion, without success; amongst them all Dr. Neligan considered two only at all deserving of notice, that of Erasmus Wilson in England, and of Cazenave in France.

Wilson formerly adopted, as the basis of his arrangement above referred to, the anatomy and physiology of the

skin, a groundwork which, owing to the modern additions made to our knowledge of this structure by microscopic investigation, and the degree of certainty which extended observation has stamped upon it, has been well employed by him, and has rendered this system of classification justly entitled to be designated a *natural* one. He constituted four *primary* divisions of the subject, viz:—

1. Diseases of the Derma.
2. Diseases of the Sudoriparous Glands.
3. Diseases of the Sebiparous Glands.
4. Diseases of the Hairs and Hair Follicles.

Of the first, five *secondary* divisions were made: 1. *Inflammation* of the Derma; 2. *Hypertrophy of the Papillæ* of the Derma; 3. *Disorders of the Vascular Tissue* of the Derma; 4. *Disorders of the Sensibility* of the Derma; 5. *Disorders of the Chromatogenous Function* of the Derma. The first of these subdivisions constituted six groups, viz: *a. Congestive Inflammation*, divided into two subgroups; the first including those affections in which both the mucous membranes and the derma are inflamed, and which are *attended with* constitutional symptoms of a specific kind; and the second, those in which the derma alone is engaged, and in which there are *no* specific constitutional symptoms; *b. Effusive Inflammation*; *c. Suppurative Inflammation*; *d. Depositive Inflammation*; *e. Squamous Inflammation*; *f. Inflammation from the presence of Acari*.

Of the second primary division, three *secondary* were constituted, as the diseases are attended with, 1. *Augmentation*; 2. *Diminution*; 3. *Alteration* of Secretion.

Of the third, five *secondary* divisions were made, as the diseases of the sebiparous glands are dependent on, 1. *Augmentation*; 2. *Diminution*; 3. *Alteration*; 4. *Retention*, of Secretion; and 5. In which the *Glands and adjacent Tissues are inflamed*.

And the fourth constituted six *secondary* divisions: 1. *Augmented Formation*; 2. *Diminished Formation*; 3. *Abnormal Direction*, of the Hair; *Alteration of Color*; 5. Diseases of the *Hairs*; and 6. Diseases of the *Hair Follicles*.

In consequence of a more extended experience, Mr. Wilson abandoned this classification, and in the *fourth*

edition of his work, published in 1857, substituted for it what he terms an *Etiological* classification, as compared with the first, or *Physiological*.

In this Etiological arrangement he divides all cutaneous diseases into *two primary groups*: 1. Diseases affecting the general structure; and, 2. Diseases affecting the special structure of the Skin.

The diseases of the first class are such as implicate at once all the tissues entering into the composition of the skin; while diseases of the second class are those which select the separate components of the skin, *e. g.*, vessels, nerves, papillæ, and pigment; or its special organs, *e. g.*, sudoriparous glands, sebiparous glands, hair follicles, and hairs, and nail follicles and nails.

Under Class I. are five *secondary* groups:—

1. Diseases arising from general causes.
2. “ special external causes.
3. “ special internal causes.
4. “ the syphilitic poison.
5. “ animal poisons of unknown
 origin, and giving rise to
 eruptive fevers.

Under Class II. are eight *secondary* groups:—

1. Diseases of the vascular system.
2. “ nervous structure.
3. “ papillary structure.
4. “ pigmentary structure.
5. “ sudoriparous organs.
6. “ sebiparous organs.
7. “ hair follicles and hair.
8. “ nail follicles and nails.

The elaborate details of this classification would fill several pages, and the curious must refer to Mr. Wilson's large work for them. In the latest systematic treatise of that veteran (*Student's Book*, &c., 1864-65), this etiological classification is in turn set aside in favor of a *Clinical* arrangement in twenty-two groups, thus:—

1. Eczematous affections.
2. Erythematous “

3. Bullous affections
4. Furuncular “
5. Nervous “
6. Vascular “
7. Hæmodyscrasic affections.
8. Developmental and nutritive affections.
9. Hypertrophic and atrophic “
10. Zymotic “
11. Alphous “
12. Strumous “
13. Syphilitic “
14. Carcinomatous “
15. Leprous “
16. Affections of the hair and hair follicles.
17. “ sebiparous apparatus.
18. “ chromatogenous “
19. “ sudoriparous “
20. “ nails.
21. Traumatic affections.
22. Phytodermic “

M. Cazenave, adopting likewise an anatomical basis for his *natural* system, arranged diseases of the skin in eight groups:—

- | | |
|--------------------------|--------------------------------|
| 1. Inflammations. | 5. Hemorrhages. |
| 2. Lesions of Secretion. | 6. Lesions of Sensibility. |
| 3. Hypertrophies. | 7. Foreign Bodies. |
| 4. Deteriorations. | 8. Diseases of the Appendages. |

The first group contains four Orders: 1. Non-specific Eruptions, which may exist in an acute or chronic state; 2. Non-specific Eruptions, existing always in a chronic state; 3. Acute Specific Eruptions; 4. Chronic Specific Eruptions.

The second group is divided into three Orders: 1. Lesions of the Follicular Secretion; 2. Lesions of the Epidermic Secretion; 3. Lesions of the Coloring Secretion.

The third group, which constitutes but a single Order, is defined to consist in an abnormal development of the parts affected.

The fourth group contains those diseases which have a tendency to destroy the parts attacked.

The fifth group is characterized by the presence of blood, more or less altered, without its proper vessels.

The sixth group is divided into two orders: 1. General or Local Hyperæsthesia; 2. Anæsthesia.

In the seventh group are placed those diseases which seem to depend on the presence of parasitical insects or animalcules.

The eighth consists of two orders: 1. Diseases of the Hair; 2. Diseases of the Nails.

Several other modern classifications may be briefly noted. The latest adopted by M. Hardy, of Paris, consists of eleven primary groups:—

1. Deformities.
2. Inflammatory affections.
3. Artificial “
4. Parasitic “
5. Gangrenous “
6. Congestions.
7. Hemorrhages.
8. Fluxes.
9. Neuroses.
10. Febrile affections.
11. Constitutional affections.¹

The Primary groups of Professor Hebra's (of Vienna) arrangement are as follows:—

- | | |
|----------------------------|--------------------|
| 1. Hyperæmias. | 7. Atrophies. |
| 2. Anæmias. | 8. Neoplasmata. |
| 3. Anomalies of secretion. | 9. Pseudoplasmata. |
| 4. Exudative. | 10. Ulceration. |
| 5. Hemorrhages. | 11. Parasitic. |
| 6. Hypertrophies. | 12. Neuroses. |

The late Dr. A. B. Buchanan, of Glasgow, published in

¹ This is taken from his latest work, *Leçons sur la Scrofule et les Scrofulides, et sur la Syphilis et les Syphilides*. Paris: 1864. And it is a slight modification of the arrangements given in Part I. of his *Leçons sur les Maladies de la Peau*. Second Edition. 1860.

the *Edinburgh Medical Journal* for January, 1863,¹ an excellent natural classification, one of the best yet invented. Without entering into its minute details, it may be here given as follows:—

Class I.—Inflammations. { 1. Erythematous.
 { 2. Eczematous.
 { 3. Phlegmonous.

Class II.—New formations:

A. Homologous. { 1. Epidermic.
 { 2. Pigmentary.
 { 3. Dermic.

B. Heterologous. { 1. Pseudoplasms.
 { 2. Neoplasms.

Class III. Hemorrhages.

“ IV. Diseases of accessory organs.

“ V. Diseases defined by uniform causes:—

A. Parasitic Diseases.

B. Syphilitic Eruptions.

C. Febrile Eruptions.

Beside these there are several other good arrangements, to which even a passing reference cannot here be made. So extended, indeed, has the subject of cutaneous nosology become, and so numerous have been the proposed classifications, that it would require a volume in itself to do justice to the entire question.

In Dr. Tilbury Fox's treatise *On the Classification of Skin Diseases* the student or the critic will find ample information and a series of comparative tables illustrating the systems already noted, and some others.

These *natural* systems, among the most perfect that have yet been proposed, present, in some respects, great advantages over *artificial* classifications, yet, I think, for many reasons, are not to be preferred. Could we, for example, predicate that the various eruptive diseases, placed by Wilson² or Cazenave in the group of *inflam-*

¹ “The Theory and Classification of Diseases of the Skin.” Also, “Synopsis of the Diseases of the Skin.” Glasgow. 1863.

² It is Mr. Wilson's first or *physiological* classification, to which reference is here made.

mations, were invariably characterized by inflammatory action, we should receive an important aid, not alone in diagnosis, but in treatment. But such is not the case in the classification of either. Both place scaly diseases of the skin in the same natural group, though in a different subdivision, with the eruptive fevers; yet can any two classes of diseases be more different in their nature? The former characterized by a chronic inflammation of slow a form that it is very doubtful whether it should be designated as inflammation at all; while the latter are especially marked by high inflammatory action: the former, tedious and slow in their progress, often lasting for years; the latter, acute and rapid, running their course in a few days: the former requiring a prolonged constitutional treatment, and the latter demanding immediate and active remedies. Thus an erroneous impression, acquired from a supposed natural affinity between two eruptive diseases, may lead to error, both in diagnosis and treatment.

Another important objection to the employment of a *natural* system of classification in the study of diseases of the skin is, that, being more complicated, and not so easy of comprehension, it is more difficult to be borne in mind than an artificial arrangement, and thus great obstacles are, by its adoption, thrown in the way of the student at the very threshold of his inquiry. No *artificial* classification of diseases of the skin can possibly be perfect, for different persons will, of course, form different ideas of the external characteristics and features of individual eruptions: yet it is an arrangement which seems to be better adapted for attaining a knowledge of the subject; and this, after all, is the only important use of any system of classification. It is especially one more easy to be remembered. It is one which aids us considerably at the bedside, for it requires a less complex process of reasoning than a natural classification, to discover by its agency what may be the disease in any special case. It is, therefore, this which I purpose to adopt.

A *regional* classification of eruptive diseases, although it is not adapted for a general inquiry into affections of

the skin, possesses much value in their individual study, as they often present great differences in character and even in form, and frequently require peculiar modifications in treatment, dependent on the region on which they may occur. I have thus adopted it in a small work which I published a few years since on Eruptive Diseases of the Scalp, and also in an Essay on those which affect the face, which appeared in the eleventh volume of the New Series of the *Dublin Quarterly Journal of Medical Science*. Were I to propose a regional system of classification, I would suggest that cutaneous eruptions should be divided into three groups: 1. Those which occur on parts of the body constantly exposed to the air; 2. Those which appear on parts that are protected from the atmosphere by clothing; and, 3. Those which affect the hairy scalp. The first group should be subdivided into those which occur on the face (and neck in females), and on the hands; for as the latter, especially in several trades and occupations, are exposed to various matters which cause irritation, and as the skin there differs anatomically, in some respects, from that on the face, eruptive diseases which affect them often present different appearances, as they are seated on either. Vesicular eruptions, in especial, present a peculiar character when they occur upon parts of the body covered with hair—as, for example, on the scalp. If a blister be applied to the surface of the scalp, deprived of the hair, the blister, in common language, is said not to rise; the epidermis upon this part of the body being not only somewhat thicker than elsewhere, except on the soles of the feet and palms of the hands, but being bound down by the numerous involutions which constitute the hair follicles. When, therefore, a vesicular eruption occurs upon the scalp, there is no apparent vesicle; and this, I believe, will account for that great difference of opinion which exists amongst writers as to the nomenclature of certain eruptive diseases of the scalp—I allude especially to the forms of Herpes.

The chief improvements which have been made on Willan's original classification are contained in the systems of Bielt, of Cazenave, and Schedel, in their joint

work,¹ in that of Dr. Tilbury Fox, in his recent learned treatise on skin diseases, and in that of Dr. Hughes Bennett, of Edinburgh. Dr. Bennett's modification of Bielt's arrangement was first published in the *Edinburgh Monthly Journal of Medical Science* for April, 1850, and is, in many respects, deserving of commendation.—See his large work on Clinical Medicine.

The great difficulty in devising an *artificial* system of classification of cutaneous diseases depends upon the changes which, in the progress of the disease, all eruptions undergo with respect to their characteristic form and appearance. These changes are often so great that it is sometimes almost impossible to diagnose to what order a special eruption may belong in its advanced stage, and it is therefore made to occupy a different place in different systems. For example, observers differ as to whether scabies, common itch, is a vesicular, a pustular, or a papular eruption. It certainly changes rapidly, in most cases, from vesicular to pustular, or the vesicles become mixed up with pustules; but, in my opinion, it is always, in its primary stage, a vesicular eruption. In most diseases of the skin, we are, however, by careful observation, able to discover the elementary form of the eruption in the early stage of the disease: and from experience we shall always be able to diagnose, even in its most extreme changes, what the primary form was. This, of course, can only be learned by prolonged practical experience.

In proceeding to describe the system of classification of diseases of the skin which I intend to adopt, I wish, *in limine*, to disclaim any pretensions to originality. My chief object is to endeavor to simplify a subject which has often not received from the student and practitioner the attention it merits, owing to the difficulties with which complicated arrangements and ever-changing nomenclature have invested it. I shall therefore take advantage of the labors of those who have preceded me and endeavor to reduce the grouping together of

¹ See also the English edition of it by Dr. Burgess.

cutaneous eruptions to as few subdivision as attention to accuracy will admit.

In the first edition of this work Dr. Neligan followed the example of Mr. Plumbe, Dr. Hughes Bennett, and M. Fabre (*Bibliothèque du Médecin Pratique*) in omitting any notice of the eruptive fevers, in which the skin affection plays so prominent a part; and also some constitutional affections which are specially characterized by a cutaneous eruption. The one class he excluded, because he considered, as we all do, eruptive fevers not to be skin diseases in a pathological sense. The other he excluded because the skin affection was secondary to the constitutional. That his reasons were weighty cannot be denied; but all things considered, and following the best home and foreign cutaneous nosologists of the present day, it has been thought best to remedy what many considered a defect in the first edition, by introducing short notices of the eruptive fevers *with special reference to their cutaneous eruptions*, referring the reader to authorities on general medicine for more full information; and also descriptions of those diseases, chiefly to be met with abroad, in which the eruption plays a secondary but a very important part. While thus including several diseases not treated of in the first edition, certain affections excluded by Dr. Neligan continue to be excluded: for example—ulcers, injuries caused by heat—as burns and scalds; and those caused by cold—as chilblains and frostbite. These are traumatic, and therefore should be considered as surgical affections.

I propose to divide cutaneous diseases into ten Groups or Orders, as follow:—

- | | |
|-----------------|-------------------|
| 1. EXANTHEMATA. | 6. HYPERTROPHIÆ. |
| 2. VESICULÆ. | 7. HÆMORRHAGIÆ. |
| 3. PUSTULÆ. | 8. MACULÆ. |
| 4. PAPULÆ. | 9. CANCROÏDES. |
| 5. SQUAMÆ. | 10. DERMATOPHYTÆ. |

Adding two supplementary groups, SYPHILIDES and DISEASES OF THE APPENDAGES OF THE SKIN.

The diseases contained in the Order EXANTHEMATA

are characterized by the occurrence, on a greater or less extended surface of the skin, of a blush of inflammatory redness, usually more or less elevated, which mostly terminates in epidermic desquamation, in the form of fine mealy scales. The most essential character of the Order is, that, as a general rule, the redness momentarily disappears on pressure with the finger. In one form of eruption, classed amongst the exanthemata, namely, erysipelas, the epidermis is very commonly raised in large blebs by serous effusion; but this is evidently caused by the intensity of the inflammation which is present, takes place in the progress of the disease, and is not a constant or essential symptom. In general, the redness is in large uncircumscribed patches, or uninterruptedly diffused over the surface; but in some forms it occurs in well-defined regular spots. The essential nature of the exanthemata is, that they are inflammatory, and they seem to have their seat in the vascular rete of the derma. This Order to some extent corresponds with the second sub-group of the first group of the first secondary division of Wilson's Natural System, defined by him as "Inflammation of the derma, without constitutional symptoms of a specific kind." It contains seven genera: ERYTHEMA, ERYSIPELAS, URTICARIA, ROSEOLA, RUBEOLA, SCARLATINA, VARIOLA and its allies.

The VESICULÆ are characterized by an eruption of vesicles or blebs, which consist in an elevation of the epidermis, varying in size, in some forms minute (vesicles), and in some of tolerable magnitude (bullæ or blebs), containing a transparent, serous fluid, which, with the progress of the disease, becomes opaque, and dries into thin scales or hard crusts. The fluid by which the elevation of the epidermis is caused in the vesiculæ is at first transparent and albuminous, but after a short time becomes opaque, and often puriform. This order nearly corresponds with the second group of the first secondary division of Wilson, which he defines as "Effusive Inflammation of the Derma." It contains five genera: ECZEMA, HERPES, PEMPHIGUS, RUPIA, SCABIES. Wilson places scabies in a distinct sub-group, defining it to be "Inflammation of the derma, from the presence of acari."

The third Order, PUSTULÆ, is characterized by the eruption of *Pustules*—rounded elevations of the epidermis containing pus, which, bursting, form scabs or thick crusts. The pustules may be of small size, and closely aggregated together, or large and isolated; the former constituting the *Psydracia*, the latter, the *Phlyzacia* of Willan; a psydracious pustule being defined by him to be “a minute pustule, irregularly circumscribed producing but a slight elevation of the cuticle, and terminating in a laminated scab,” and a phlyzaceous one “of a larger size, raised on a hard, circular base of a vivid red color, and succeeded by a thick, hard, dark-colored scab.” The epidermic covering of a pustule is much thicker than that of a vesicle, consequently it takes a longer time to mature, or, in other words, to burst and form a scab or crust; but in their advanced stage the diagnosis between the two is sometimes not unattended with difficulty. The eruptions placed in this order correspond with those classed by Wilson in the third group of his first secondary division: “Suppurative Inflammation of the Derma.” The genera are four in number: ACNE, IMPETIGO, ECTHYMA, and FURUNCULI. Wilson, however, puts acne in a group, the definition of which that he gives being, “Inflammation of the glands and adjacent textures.”

The PAPULÆ are characterized by an eruption of minute, solid elevations—*pimples*, generally reddish, but sometimes of the natural color of the skin, containing neither serum nor pus, terminating in the desquamation of fine scales, and almost invariably attended with intolerable itching. In some forms, the top of the pimple is of a reddish-brown or black color, but this merely depends on the accidental presence of a small, dried crust of blood, usually effused by scratching. This Order contains two genera: LICHEN, PRURIGO. It corresponds with the fourth group of Wilson's first secondary division, which he defines: “Depositive inflammation of the derma.”

The eruptive diseases contained in the Order SQUAMÆ are characterized by the secretion of dry, laminated, whitish scales on the cutaneous surface, usually occurring in patches, often of a circular form. The scales, which are somewhat elevated above the level of the skin,

readily fall off, to be again rapidly renewed; the part which they cover is of a smooth, glistening aspect, reddish, and dry. The Order corresponds with the fifth group of the first secondary division of Wilson's classification: "Squamous inflammation of the derma." It contains two genera: PSORIASIS, PITYRIASIS.

In the Order HYPERTROPHIÆ I include those diseases which are characterized by an hypertrophied condition of the derma or epidermis, or of both, or of the hair follicles. The term has been used much in this sense by Simon, in his *Anatomical Description of Diseases of the Skin*; and from him I have adopted it. In its application it is nearly synonymous with the TUBERCULA of former artificial systems of classification. The latter term, although probably not so faulty, when first employed to designate a group of cutaneous diseases, is, I think, highly objectionable at present, when it is invariably understood to designate a peculiar morbid deposit, and its application in any other sense must tend to cause confusion. Wilson, in his Natural System, has a group in which are placed those affections that consist in an "hypertrophied state of the papillæ of the derma;" but I propose to extend the application of the term, and to include in the Order those diseases in which the hypertrophy affects the other cutaneous structures. I shall place in it nine genera: ICHTHYOSIS, MOLLUSCUM, STEARRHŒA, ELEPHANTIASIS, and its allies, VERRUCÆ, CLAVUS, CALLOSITATES, CONDYLOMATA, NÆVI.

The characteristics of the seventh Order, HÆMORRHAGIÆ, scarcely require to be defined. In it there is a morbid alteration of the capillary circulation, accompanied by a changed or diseased condition of the blood, in which this fluid, escaping from its proper vessels, is extravasated in rounded spots or patches beneath the epidermis, and also beneath the epithelium of the mucous and serous membranes. Bursting through the latter finer structure, more or less bleeding usually takes place from the surfaces of both these membranes. It contains but one genus, PURPURA.

The Order MACULÆ is characterized by an alteration in the color of the skin, occurring usually in large patches,

and unattended with any eruption. The natural color may be deepened, diminished, or altered in hue, and the affection has its seat evidently in the apparatus of the skin which secretes the pigmentary matter. The Order corresponds with the fifth secondary division of Wilson: "Disorders of the Chromatogenous Function of the Derma." It contains two genera, VITILIGO, which includes *albinoismus*, and EPHELIS, which includes Morbus Addisonii.

The Order CANCROÏDES contains those diseases of the skin which in many of their features resemble cancerous affections. They are characterized by a degree of semi-malignancy, usually attended with foul ulceration of a slow and insidious nature, often with severe stinging pain, and a marked tendency to return after apparent cure, or after excision, in the same or in remote parts of the cutaneous surface. It contains two genera: LUPUS, KELOÏS.

The tenth Order, DERMATOPHYTÆ, I have adopted from Bennett. It includes those diseases of the skin which depend on, or are characterized by the presence of, parasitic plants. It contains two genera: PORRIGO, SYCOSIS.

Of the two supplementary Orders, the first—the SYPHILIDES—contains those eruptions of the skin which are ordinarily termed *secondary*, being caused by, or consequent on, the introduction of the venereal virus or poison into the system: and the second includes diseased conditions of the *hair* and *nails*.

This classification, in the drawing up of which I have had chiefly in view an attempt to simplify what is admittedly a difficult study, may be tabulated as follows:—

ORDER.	GENERA.
1. EXANTHEMATA, .	Erythema, Erysipelas, Urticaria, Roseola, Rubeola, Scarlatina, Variola and its allies. ¹
2. VESICULÆ, . .	Eczema, Herpes, Pemphigus, Rupia, Scabies.
3. PUSTULÆ, . . .	Acne, Impetigo, Ecthyma, Furunculi.
4. PAPULÆ, . . .	Lichen, Prurigo.
5. SQUAMÆ, . . .	Psoriasis, Pityriasis.
6. HYPERTROPHIÆ,	Ichthyosis, Molluscum, Stear-rhoea, Elephantiasis and its allies, Verruca, Clavus, Callositates, Condylomata, Nævus.
7. HEMORRHAGIÆ, .	Purpura.
8. MACULÆ, . . .	Vitiligo, Ephelis.
9. CANCROIDES, . .	Lupus, Keloïs.
10. DERMATOPHYTÆ, .	Porrigo, Sycosis.

Supplementary Groups:

SYPHILIDES.

DISEASES OF THE APPENDAGES OF THE SKIN.

¹ The following additions are now made to Dr. Neligan's Classification:—

1. EXANTHEMATA, . . .	Rubeola, Scarlatina, Variola, and its allies.
3. PUSTULÆ, . . .	Furunculi.
6. HYPERTROPHIÆ, . . .	Elephantiasis—its allies.

CHAPTER II.

EXANTHEMATA.

THE term "EXANTHEMATA" (literally "eruptions," from ἐξάνθημα) was employed by the ancient writers on medicine to designate every variety of eruption of the skin; but in modern days, and more especially since the time of Willan, it has been restricted to denominate a peculiar group of cutaneous diseases—one so well defined by external appearances, that there is no difficulty in diagnosing any of its forms during all their stages. They are characterized by the sudden appearance, on a greater or less extended portion of the skin, of an inflammatory redness in variously shaped patches, which momentarily disappear on pressure, are usually attended with a slight elevation of the surface, and terminate in exfoliation of the epidermis. The diseases belonging to this Order are almost invariably accompanied by more or less inflammatory fever, and they thus constitute a *natural* group. In the treatment of them, however, we should be careful not to let this idea of inflammation being one of their marked characters, lead us to take too exclusive a view as to the remedial measures indicated; for the attendant inflammation may be either of a low asthenic form, as it frequently is, or it may assume a highly sthenic type.

The eruptive fevers, rubeola, scarlatina, variola and its allies, should be properly included in this order, as they are in the Exanthemata of Cullen.

The definition already given applies pretty closely, though not absolutely, to them all. They are quite as entitled to be considered skin diseases as erysipelas, for example; and it would be hard to show why they should be excluded, if other symptomatic diseases be admitted

into a cutaneous nosology. In the nosology of Willan and Bateman rubeola and scarlatina are classed as *Exanthemata*; variola is classed among *Pustulæ*, and varicella, and vaccinia among *Vesiculæ*. As already observed, however, they constitute a natural group, and are here classed together.

These eruptive fevers are now commonly termed *Zymotic* diseases, from ζύμη, leaven, in accordance with the revived ancient doctrine which considers their origin due to fermented leaven acting as a poison or poisons on the blood. The revival of this ancient doctrine of the humoral pathology is but one of many instances in which the wisdom of the ancient observers is apparent. Mr. Wilson, who has elaborately treated of these diseases, is of opinion that their pathology consists in active congestion of the capillaries of the skin, and he believes rubeola, scarlatina, and variola to be successive stages, each of the other, and all due to the same poison. The identity of the poison in these diseases is, however, strongly disputed.

In a strict pathological sense these affections are fevers, not local diseases; and for a full account of them resort must be had to works on general medicine. The appearances on the skin will be chiefly noted in this chapter, but full references to books containing everything known on the subject will supply the want of matter outside the scope of this volume.

In Erysipelas, one of the diseases included amongst the Exanthemata, the epidermis is often elevated by serous effusion into bullæ or even large blisters, which has induced some writers to describe it as a vesicular eruption;¹ but these vesications are not a constant or necessary feature of erysipelas, and when they do occur are evidently dependent on the high degree of local inflammation which may be present.

The seven genera belonging to the order are: Erythema, Erysipelas, Urticaria, Roseola, Rubeola, Scarlatina, Variola and its allies.

¹ It is placed in Willan's order "Bullæ."

ERYTHEMA.

Erythema: *ἐρύθημα*, of Hippocrates (from *ἐρυθαίνω*, to reddens; or from *ἐρυθρός*, red). Erysipelas, of Celsus and Galen; Phlogosis Erythema of Cullen; Dartre Erythemoide, Herpes Erythemoide of Alibert.—See Atlas, Plate I.

ERYTHEMA (*Inflammatory blush*) consists in an eruption of superficial, deep red stains or patches, more or less circumscribed, and slightly elevated, attended with heat and tingling, and terminating either in resolution, or with slight furfuraceous desquamation. It is non-contagious, of a mildly febrile character, and rarely a disease of much importance; most forms of it terminating in a few days, and seldom becoming chronic.

The erythematous eruption very frequently appears on the skin in the course of many acute affections, especially fevers and inflammatory diseases; often occurs in dropsies, when it affects the depending parts of the body or those exposed to pressure; may be produced by irritation of the cutaneous surface, as by the friction of the clothes or of the exposed surfaces of the skin, as when it appears in the axillæ or in the groins; and is likewise caused on the uncovered parts of the body by exposure to harsh winds, or to the sun in travelling. The eruption may appear on any part of the cutaneous surface, but some of its forms occur with great regularity in certain regions of the skin.

Several varieties of erythema have been noticed by dermatologists, particularly by Willan and Bateman, whose nomenclature is in the main adopted by all writers. Dr. Tilbury Fox, following Hardy, arranges them in three groups:—

1. Those purely local: Varieties—E. simplex; E. intertrigo.
2. Those accompanied by general symptoms simulating acute febrile diseases: Varieties—E. papulatum; E. tuberculatum; E. nodosum; E. fugax; E. scarlatina-forme; E. marginatum; E. circinatum.
3. Those secondary to or symptomatic of other diseases, e. g., the exanthem of cholera; Erythema leve.

Hebra divides the forms of Erythema into *congestive* and *exudative*; including under the first head the idiopathic or local; and the constitutional or symptomatic; but all of them may, I think, be described under three heads:—

Erythema simplex.

“ papulatum.

“ nodosum.

Erythema simplex (Plate I, Fig. 1), under which I include the *E. fugax*, *E. leve*, *E. intertrigo*, *E. marginatum*, and *E. circinatum* of other writers, is generally a very mild form of eruption of the skin, requiring but little attention, unless when it assumes a chronic character—as *intertrigo*, when neglected, or when the causes by which it is produced are continued, not unfrequently does. It appears in the form of uncircumscribed red patches, seldom exceeding the size of the palm of the hand, and scarcely elevated above the surrounding skin; it generally occurs in the course of some inflammatory disease, when, owing to the patches suddenly disappearing, and again as suddenly reappearing on some other part of the body, it has been termed *erythema fugax*; it also assumes the same character as indicative of or connected with derangements of the digestive organs, or obstructed menstruation. The usual seat of this sub-variety is on the face, the neck, the trunk, or the under extremities; there is no constitutional disturbance marking its occurrence, and the only local symptom is a slight degree of heat in the part attacked. Thus, then, it would appear to be a very unimportant disease, were it not for a remark of Hippocrates, the truth of which has been confirmed by most modern observers, that the occurrence of *erythema fugax* in fevers or acute diseases is an unfavorable sign.

Mr. Erasmus Wilson observes, that this affection, by him termed *E. fugax*, is sometimes chiefly remarkable for a tendency to swell; and relates two cases in point. In one, the subject, a military officer, when on parade was occasionally seized with so sudden a swelling of the face that he had to be led to his quarters completely blinded.

In another the disorder attacked the lips, and sometimes the tongue, of a clergyman, causing him to have a very narrow escape from suffocation at times. In confirmation of a previous remark, Mr. Wilson also observes, that *E. simplex* (or *E. fugax*) is sometimes associated with vicarious menstruation; and mentions having seen three cases of it, in all of which "the patients were young, and suffering from amenorrhœa; they were also hysterical."—*Student's Book of Cutaneous Medicine*, p. 134.

This form of erythema, when it occurs in dropsical persons, presents a bright red, smooth, and shining aspect, whence it has been termed *erythema leve* (Plate I, Fig. 2). It usually appears in rather large patches, which spread rapidly, and, if exposed to continued pressure, may end in ulceration, and even in mortification, when the vital powers are very low.

The sub-variety, which has been denominated *intertrigo* (literally a galling of the skin), occurs very commonly amongst children, whose fine skin may have been chafed from any local irritation, as from the surface not being sufficiently cleansed from dirt or from the natural secretions; it also appears in adults, especially during hot weather, in whom it is usually produced by the friction of opposed surfaces of the skin, or by rubbing of the clothes. In its commencement it is characterized by the ordinary appearances of an erythematous eruption, but affecting, as it chiefly does, those parts of the cutaneous surface in which the sebaceous glands most abound, it is soon attended with a diseased exudation from both the sebaceous and sudoriparous glands, and the parts are coated with moisture of a fetid and acrid character, which keeps up the inflammatory irritation, and may even cause troublesome ulceration. The two other sub-varieties of erythema simplex were named by Willan from the form which they assume, the one, *circinatum*, which occurs in small, round, slightly elevated patches, while the other, *marginatum* (Plate I, Fig. 5), is more elevated at the edges than in the centre, the margin being thus well defined—the patches are generally of a deep-red hue. The former occurs, for the most part, during some inflammatory disease, with the cessation of the acute symp-

toms of which it usually disappears; and the latter seems to be a form which erythema simplex frequently assumes in the old.

Erythema papulatum (Plate I, Fig. 3) is of frequent occurrence, especially in young persons about the age of puberty, and in females in whom the menstrual functions may have been obstructed. It is said to be a common form of disease amongst the Turkish soldiers (*vide Hubsch. Gaz. Méd. d'Orient*, II, 11th February, 1859, and Schmidt's *Jahrb.* Vol. CI, p. 180—quoted by Dr. Tilbury Fox, *Skin Diseases*, p. 51). It appears most generally on the backs of the hands and fingers, but also occurs on the face, the neck, and other parts of the body. It is characterized by an erythematous blush on an uncircumscribed surface of skin, on which there are numerous small, round elevations, about the size of a pea, of a deeper red hue, the portions of the skin between the elevations being always of a paler or less bright color. The commencement of an attack of this variety is attended with some fever, headache, and slight nausea, and there are heat and a disagreeable sensation of tingling in the affected parts, which are also slightly sore to the touch. This form of the eruption is of no great importance, lasting usually for only a few days, and very rarely assuming a chronic character. Sometimes rather larger elevations are intermixed with the others, or they may all, from the commencement, assume the size of a nut or a large marble, when the variety has been named *tuberculatum*; it presents this character most frequently on the extremities; the raised spots are there harder to the touch, attended with more local annoyance, and the eruption more frequently becomes chronic.

Erythema nodosum (Plate I, Fig. 4) is so called from the appearance which the eruption presents. It usually occurs on the anterior aspect of the lower extremities, generally from the knee to the ankle. I have seen a few cases in which it was situated on the back of the arms, and I have occasionally seen a few spots on the anterior surface of the body. It appears in distinct rounded or oblong red patches, from half an inch to even two inches in diameter, with a well-defined border, circumscribed,

and slightly elevated in the centre—but the elevation is more apparent to the eye than to the finger when passed over the part. The centres of the patches or *knots* are of a somewhat brighter color than the borders, which have a dark red blush; the general redness fades but slightly on pressure, which, however, causes pain, and on the pressure being removed the color immediately reappears. This form of erythema is most generally met with in young girls from the age of 14 to 19 or 20, rarely appearing in males. Dr. Tilbury Fox (*op. cit.*, p. 52) believes it to be sometimes associated with chorea and rheumatism; and Hardy states that it may become chronic in persons of a scrofulous habit, producing sores like syphilitic ones. It has been described by some as being connected with a deranged state of the menstrual functions, but in my experience I have rarely seen it produced by such a cause. It is attended with more fever than any of the other forms of erythema, being generally ushered in with nausea, sometimes even vomiting, pains in the back, loins, and head, together with loss of appetite and slight shivering. This state may continue for from twelve to twenty-four hours. The patient then feels a sensation of heat and tingling on the fronts of the legs, and on examination the characteristic eruption is seen. The *knots* or patches appear simultaneously over the surface, not coming out in succession, increase in size, and become harder and more painful for three or four days, then deepen in color until the eighth or tenth day, when they begin to fade, and passing often through the green and yellow stages of a bruise, disappear with slight desquamation of the epidermis in about a fortnight or three weeks from the commencement of the attack.

Under the title *E. tuberculatum et oedematosum*, Dr. Durkee has described a disease consisting of small tubercular elevations, vesicating at their apices, then flattening; the skin showing a shrivelled or collapsed condition of cuticle.—*Boston Med. and Surg. Journal*, 17th April, 1856, p. 189.

The seat of erythema is manifestly in the vascular structure of the derma, the nervous functions being but little affected; the causes by which it is produced have

been already adverted to. An *epidemic* of erythema has been described as having occurred in Paris in 1828-29, as a complication of a painful affection of the extremities, thence termed *Acrodynia*, which raged there at that period. M. Cazenave, who witnessed it in the Hôpital St. Louis, describes its characters as consisting in "an erythematous circle of a crimson color appearing on the soles of the feet and on the palms of the hands, covering a space of from one-third to two-thirds of an inch, and disappearing under the pressure of the finger; it presented the peculiarity that the portion of the skin which surrounded it was generally of a yellowish color, swollen, and very hard, while the affected patch was manifestly depressed and very painful to the touch. These spots of erythema also appeared occasionally on the thighs, the scrotum, and in the axilla."

Dr. Tilbury Fox (*op. cit.*, p. 55) describes the following form of erythema not before remarked on, so far as I know, by any writer: "It occurs especially about the back and sides of the hands and fingers in those out of health. The skin becomes red, in little circular spots, from which the epidermis peels off by a centrifugal death, as it were, leaving behind a red dry surface marked by circular ridges of what appear to be normal papillæ. The places are many, the disease is chronic, and requires no treatment. It looks simply like the death of the epidermis, beneath which is seen the reddened derma marked by circular ridges of prominent papillæ. It is not erythema circinatum; it is more like a superficial acrodynia."

The *diagnosis* of any of the forms of erythema is in very few instances attended with much difficulty. It may be mistaken for the milder forms of *erysipelas*, especially in their early stage, but the blush of erythema is of a deeper red, and less livid than that of *erysipelas*, is not attended with the same amount of local tumefaction, burning heat, and pain, and is marked by much less disturbance of the system generally, and much less fever. That form of erythema simplex which has been named *fugax* has sometimes been mistaken for *urticaria evanescens*; they are both exanthematous eruptions; but in the latter the eruption disappears and reappears with

constant rapidity, generally in the same places; while erythema fugax, though nearly equally evanescent, does not return to the same parts; it is, too, unattended with the acute itching and annoying tingling so characteristic of urticaria, and moreover occurs in the course of some disease of the general system, while urticaria evanescens is an idiopathic affection. Erythema papulatum has sometimes been mistaken for some of the eruptive fevers, as for measles or scarlatina; but its local character, its appearance upon the hands, and its papular elevation, serve to distinguish it from measles, in which the eruption is of a crescentic form, of a duller red color, and attended with a catarrhal fever. As regards scarlatina, the bright redness of the efflorescence and the acute inflammatory fever, together with the sore throat of that disease, should suffice to render the diagnosis easy. Intertrigo may be confounded with chronic eczema, occurring behind the ears, in the axillæ, or in the groins; the latter, however, is a vesicular eruption in its primary stage, and, as it advances, is marked by the copious serous discharge, tumefaction, and deep red fissures, which so remarkably characterize the disease.

The *prognosis* in any form of erythema is, of course, very favorable; all the varieties being of a slight character, lasting but for a short time, and the patient recovering without any detriment to the general health.

Treatment.—In the very common form of erythema simplex caused by exposure to the heat of the sun or harsh winds in travelling, nothing further is required than anointing the parts affected with some mild oleaginous application, such as cold cream or fresh olive oil: a common domestic remedy, but not so efficacious, is the cream of cow's milk. When the eruption occurs in the course of any acute disease, no local application should be used except the warm bath, if it is not otherwise contraindicated; and where it is symptomatic of any derangement of the digestive organs or of any other part or function of the general system, the constitutional, not the local, affection should be treated. In erythema leve the parts should be carefully protected from pressure, gently sponged with the dilute solution of subacetate of

lead warmed, then well dried, dusted over with flour, and enveloped in raw cotton. When the disease appears inclined to spread, I have found lint wet with the lead-wash, and covered with oil silk, the best application.

Erythema intertrigo is sometimes very obstinate, especially in children, when it occurs behind the ears, as it very frequently does. As a preventive, and in the early stages, dusting the parts with very finely powdered lapis calaminaris is often useful; but when it becomes at all chronic, an ointment, consisting of two grains of the carbonate of lead, half an ounce of white wax ointment, and half a drachm of glycerine, is better adapted. With some very chronic cases, all greasy applications seem to aggravate the disease, when I have seen it rapidly get well from the use of a lotion containing three grains of the sulphate of copper in an ounce of elder-flower water, applied on lint, kept constantly wet with it. In adults, intertrigo of the groins is occasionally very troublesome and sometimes obstinate, especially when the irritation is kept up by walking; the cucumber ointment of the French pharmacutists has proved more successful in my hands in these cases than any other application: in the commencement of the eruption it generally effects a cure in a few days, the affected parts having been each time previously cleansed with a moist towel, and then dried; it should be rather thickly smeared over them three times a day. If the cucumber ointment cannot be obtained, an ointment prepared by rubbing together two grains of acetate of zinc dissolved in a drachm of rose-water, and an ounce of cold cream, may be substituted for it. Juniper tar soap has also been used with the addendum of applying zinc ointment to the part after each application of the tarry preparation. Erythema papulatum is best treated in young persons by mild antiphlogistics, especially the saline cathartics, or emeto-cathartics. When the accompanying fever is at all well marked, and the disease occurs in robust constitutions, the use of a mixture containing two grains of tartar emetic and two ounces of sulphate of magnesia in a pint of water, of which a wineglassful is taken every second hour until vomiting or

purging be produced, is generally attended with much benefit. When it attacks old persons, or assumes the tuberculated form, tonics, such as the compound tincture of bark in effusion of quassia or of calumba, are indicated; the strength also should be supported with nourishing diet, and wine allowed. Should this variety of erythema be associated with deficient or obstructed menstruation, the preparations of iron will in general be found beneficial, unless the derangement be accompanied by plethora or local congestions, when of course an antiphlogistic plan of treatment should be adopted.

Erythema nodosum, like the form last described, is not benefited by local applications, if we except the general warm bath which may be used every second or third day. The patient should remain quiet in bed, and live low until the feverish symptoms abate; saline antiphlogistics, the bowels having been previously freed by a mild mercurial purge, are of much service; of these, a good form is a mixture consisting of half an ounce of bitartrate of potash, a drachm of borax, two drachms of white sugar, and twenty fluidounces of water, of which two ounces may be taken every sixth hour. While the use of the general warm bath, as above remarked, is usually productive of much benefit in this form of erythema, local baths, such as the foot bath, generally aggravate the disease, in consequence of their determining an increased afflux of blood to the affected parts.

ERYSIPELAS.

Erysipelas—*ἔρυσιπέλας* (from *ἐρυθρός* and *πέλλα*), *Ἐπφλόγισμα* of Hippocrates; *Ignis sacer*, Lat.; *Febris Erysipelatosa* of Sydenham, *Erysipèle* of Rayer.—See Atlas, Plate I.

ERYSIPELAS (*St. Anthony's Fire*, or "*the Rose*") is characterized by a diffused shining redness of the skin, attended with burning heat, pain, tumefaction, and a tendency to spread, and terminating in resolution with or without previous serous effusion beneath the epidermis, in suppuration, or in gangrene. It may be conveniently considered under two divisions:—

Erysipelas idiopathicum.
 “ traumaticum.

Cazenave arranges the varieties of it which have been described into three groups: True erysipelas, in which the inflammation is confined to the skin; Phlegmonous erysipelas, in which the disease extends more or less deeply into the subcutaneous areolar tissue; and Gangrenous erysipelas, in which the inflammation terminates in mortification.

Idiopathic erysipelas almost invariably attacks the head and face, so much so that some writers, amongst others Dr. Watson (*Lectures*, Vol. II, p. 913, 4th edit.), propose to restrict the term to that disease in which this portion of the cutaneous surface is diffusely inflamed; but the inflammation so frequently spreads from these parts to the integuments of the neck and trunk, and as in some cases it appears primarily even on the extremities, I cannot agree with this proposed restriction. In one case, that of a young man, eighteen years of age, who was brought into Jervis Street Hospital in the year 1846, every part of the cutaneous surface, even to the soles of the feet, was affected with idiopathic erysipelas; it had commenced on the integuments of one side of the face after exposure to cold, and spread so rapidly that, on the fifth day, the entire of the body was engaged in the disease; he died on the second day after his admission into the hospital, the seventh from the appearance of the eruption.

In confirmation of Dr. Neligan's statement, Dr. R. B. Todd observed: "It is one of the features of this disease that it has a remarkable tendency to spread, sometimes wandering all over the body, from face to neck, and from neck to trunk, being then termed *erratic* erysipelas."—*Clinical Lectures*, Beale's edition, p. 155.

Idiopathic erysipelas is, in nearly all cases, ushered in with well-marked febrile symptoms, shivering, pain in the back and limbs, loss of appetite, thirst, bad taste in the mouth, nausea, and rapid pulse, which, however, is often very compressible; the urine is scanty and high-colored, and the bowels costive. In a few cases, more

especially in very old persons, or in broken-down habits, the local symptoms are attended with very little constitutional disturbance. The erysipelatous inflammation frequently appears first on the tonsils, when the patient complains of the symptoms of an ordinary sore throat; but, on examination, they present a darker red hue than is usually present in tonsillitis, and they are also more swollen. That eminent physician and physiologist, the late Dr. R. B. Todd, considered sore throat one of the earliest symptoms of this disease, and he has observed attacks of it (erysipelas) to be very often ushered in with sudden vomiting.—*Clinical Lectures*, Beale's edit., p. 151. Within twenty-four hours from the onset of the attack diffuse swelling and redness appear on some part of the cutaneous surface of the face or head, accompanied by burning heat, pain, and tension, the pain being much increased by the slightest touch, resting the inflamed part on the pillow even being often intolerable. The surface pits on pressure with the finger, which also causes the redness to fade momentarily; the affected part is bright, shining, and swollen, but smooth. With the progress of the disease the tumefaction increases much, especially where the integuments are loose, as in the eyelids and ears, and around the eyes, so that on the second or third day the eyes are usually quite closed by the swelling.

The local inflammation generally attains its height about the sixth or seventh day, when, if vesications have appeared, they burst, and give exit to an acrid, transparent, watery discharge, which occasionally irritates the sound skin in the neighborhood over which it may flow. These vesications rarely appear before the fifth day of the eruption, and run a very rapid course; they vary in size from a few lines to an inch or more in diameter. The constitutional fever, which increases with the maturation of the eruption, being most severe on the fifth or sixth day, when delirium frequently occurs, declines with the diminution of the local symptoms; the redness now begins to fade, the swelling subsides rapidly, and the disease terminates in favorable cases with desquamation of the epidermis on the tenth or twelfth day.

When the erysipelatous inflammation extends to the subcutaneous tissues and deeper seated structures, the disease is denominated erysipelas *phlegmonodes*. This form appears more frequently on the extremities than on the head and trunk of the body. The constitutional symptoms by which it is ushered in, and which accompany it, are of a more severe character, and very frequently assume a typhoid type. As regards the local characteristics, the portion of the integuments affected presents a dull red or livid color, is intensely painful, hot, and tense, pits more deeply on pressure, and is more tumefied. The inflammation here very seldom terminates in resolution, suppuration usually occurring in the areolar tissue, with death and sloughing to a greater or less extent of this structure, occasionally ending in mortification of the part attacked.

Erysipelas spreads over the cutaneous surface often with great rapidity, yet assuming a regularly progressive course, the parts on which it first appeared being those, when the disease ends in resolution, which first desquamate. Thus it sometimes occurs that the eruption is fading from the face and the swelling disappearing there, while the disease is beginning to show itself on the side of the head or the neck. Erysipelas is in an occasional case seen to assume a singularly erratic course, fading rapidly from the part on which it appeared, and suddenly attacking another portion of the skin at some distance, not spreading to it by contiguity. This, as already noted, has been made a distinct variety by some writers under the name of erysipelas *erraticum*. Dr. Graves was the first to notice a singular fact as regards the mode of spreading of erysipelas, that when it commences at any point of the mesial line of the body it is very apt to spread in a symmetrical manner;¹ that is to say, corresponding portions of the integuments are simultaneously attacked on both sides.

In the course of erysipelas, the inflammation sometimes attacks one or more of the internal organs, as the

¹ *Clinical Medicine*. Second Edition, Vol. ii, p. 327; or Reprint of Second Edition (1864), p. 690.

membranes of the brain, the larynx, and trachea, or the gastro-intestinal mucous membrane. By some this is considered to be a metastasis; and on this supposition it has been described as a distinct variety of the eruption under the name of erysipelas *metastaticum*; but in all the cases that I have seen in which any internal part of the body became thus affected, the local erysipelatous inflammation still remained unchanged, and therefore it could not be correctly termed metastatic.

Traumatic erysipelas has its origin in some local injury which may or may not have caused breach of the surface; it more usually, however, succeeds the former: when it spreads from an ulcerated surface it is also said to be traumatic. In its local characteristics it corresponds in most cases with the phlegmonous form of the disease, presenting, however, more effusion of the liquor sanguinis into the deep-seated tissues, in consequence, seemingly, of which vesications rarely appear on the surface. The inflammation is also more diffuse, spreading rapidly from the wound, and, unless checked by treatment, rarely becoming circumscribed. The parts affected, too, are more apt to become gangrenous, a not uncommon result in bad constitutions. The general symptoms of traumatic erysipelas most frequently assume a typhoid type, and are attendant on, not antecedent to, the local inflammation. In some few rare cases of this form both the local and constitutional symptoms are very mild, and do not last for a longer period than a week or ten days; in general, however, their duration is prolonged to from a fortnight to three weeks, if death does not take place at an earlier date.

In idiopathic erysipelas death most usually occurs from the result of inflammation attacking some internal organ; but patients occasionally sink under this disease with the ordinary fatal symptoms of asthenic or typhus fever. The traumatic form often terminates in gangrene, or, the veins becoming inflamed, purulent deposits take place in the lungs or liver, and the individual dies of phlebitic pneumonia or hepatitis.

Erysipelas may occur at any age, even in new-born children, in whom it attacks the umbilical region, from

whence spreading rapidly, it almost invariably proves fatal. General experience seems to prove that it is more frequent in females than in males, and in adult life than in the very young or the aged.

The *causes* of erysipelas are at times very obscure, yet in many cases its origin can be distinctly ascribed either to some local action, as in the traumatic form or when it is produced by some direct irritant, or to some general constitutional disturbance; indeed, the latter may be said to be always requisite as a predisposing cause. Thus it is often seen to arise from the same causes as those which under other circumstances produce fever: it follows exposure to cold or wet, especially when the persons so exposed are deprived of their usual food or stimulants; I saw several cases of erysipelas of the face and head occurring in car-drivers and others, who, from their occupation, were much exposed to the weather, at the time when the total abstinence movement first occurred in Ireland, and in whom the disease was evidently traceable to the want of the stimulants which they had been previously in the habit of using freely. On the other hand, it must be observed that "good livers" are more liable to bad attacks of it than those who are "temperate in all things."

A very fatal form of erysipelas is caused by the introduction of an animal poison into the system, as by the inoculation of morbid matter arising from wounds received during dissection, from persons laboring under phlebitis, &c. Erysipelas may be produced by a sudden violent mental emotion, as a fit of passion—such cases are on record—in which the local determination of blood probably aids in the production of this disease. In young children vaccinating is sometimes the exciting cause of erysipelas, when it usually presents an œdematous character. I witnessed a case lately which thus arose, and in which the inflammation spread from the vaccine pustule on the left arm to the fingers, thence proceeded up along the fingers of the opposite arm, and stopped when it reached the same height on this arm that it originated from on the other: the child recovered.

As to whether erysipelas is contagious or not a singular difference of opinion has always existed, and still

exists, between the practitioners of the French and English school; the former laying it down as one of the characteristic definitions of the disease that it is *non-contagious*, and the latter with almost universal consent asserting that it is *markedly contagious*. The simultaneous occurrence of the disease amongst a number of persons is attempted to be explained away by the French writers on the principle that such persons were predisposed to it, or that an epidemic influence, or a peculiar atmospheric condition reigned at the time. It is unquestionable that at certain seasons or during certain years the contagiousness of erysipelas is more manifested than at other times, but this is equally true of all other contagious diseases. The direct proofs now accumulated are too numerous and too certain, I think, for the question to be any longer one of doubt, and no British surgeon would, I feel confident, undertake an operation in an hospital in which erysipelas was present. The form of erysipelas arising from an animal poison is decidedly the most contagious; the medical attendants and nurses are in such cases generally infected, and they convey the disease even to others. It has been often remarked that when puerperal fever—which is manifestly due to the presence of a morbid poison in the system—prevails, wounds are very apt to take on erysipelatous inflammation, and the disease spreads rapidly by contagion; and likewise when erysipelas occurs epidemically, that puerperal fever is apt to arise. The truth of these observations has been several times confirmed in the Rotunda Lying-in Hospital and large surgical hospitals of this city.

Persons who have had an attack of erysipelas are very liable to be again affected with it, a distinguishing feature between it and the eruptive fevers.

The *diagnosis* of erysipelas is rarely attended with any difficulty. From erythema, which, however, some dermatologists regard as merely a mild form of erysipelas, it is distinguished by the attendant constitutional symptoms, the smoothness of the tumefied surface, the greater degree of swelling, and the burning pain and tension. It differs from the eruptive fevers in the

uniform redness which the inflamed surface exhibits; from phlebitis, in the absence of the cord-like feeling which the inflamed veins present, and in the inflammation not spreading in lines over the track of the large vessels; and from synovitis in the inflammation not being confined to, or taking its origin from, the integuments covering the synovial membranes; but in many cases synovitis terminates in true erysipelas.

The *prognosis* in idiopathic erysipelas is in general favorable, unless when the disease occurs in the very old, in broken-down habits of body, or in extreme infancy. The chief indications of danger are, the attendant fever assuming a low typhoid type, or some internal organ becoming affected. When the erysipelatous inflammation attacks the larynx and glottis, which may always be apprehended when it is seated on the integuments covering these parts, it usually proves rapidly fatal, owing to the tumefaction which ensues, closing up the respiratory tube. Erysipelas of the phlegmonous character is always more dangerous than when the inflammation is superficial; and in the traumatic form, unless the local symptoms are very mild, the prognosis is always grave.

With reference to the *pathology* of erysipelas, it is evidently an acute inflammation of all the structures of the skin, the vascular rete being chiefly affected. M. Blandin has propounded the theory that the seat of the inflammation is in the capillary lymphatics, and MM. Cruveilhier and Ribes that it is situated in the capillary veins of the integuments.

The *treatment* of idiopathic erysipelas may be conveniently considered under two heads—the constitutional and the local. As regards the former, many different views have been propounded, the supposed indications depending on the idea formed as to the essential nature of the disease. Thus those who believe it to depend on some deranged condition of the hepatic secretion—the prevalent opinion among them being that it is caused by a deficient secretion of bile and a consequent accumulation of it in the system—treat all forms of erysipelas, no matter what may be the age or condition of the patient,

by the administration of remedies calculated to promote a copious evacuation of that fluid by the alimentary canal. Others, regarding it as a highly inflammatory disease, employ depletion, and other active antiphlogistics; but this plan of treatment, although it may succeed in the robust dwellers in country districts [? ED.], is not at all suited for the inhabitants of towns or large cities. With some, the affection being viewed as one of asthenia, being attended with or dependent on diminished vital power, the use of tonics or stimulants is relied upon; while again, others, finding that the urine is highly acid in the early stages of the disease, as it is in all febrile affections, recommend an alkaline treatment.

Seeing that these so opposite plans of treating erysipelas are reported by those who have proposed or adopted them as being attended with almost invariable success, we are forced to the conclusion that in the ordinary run of cases constitutional treatment is of little importance. Unquestionably cases occur in which there are extreme inflammatory action and high fever, apparently demanding the use of bleeding and antiphlogistics; and others in which the vital power is so low and the accompanying fever assumes from the onset so marked a typhoid type, that the most powerful tonics, stimulants, and nutrients are clearly indicated. My own experience, which, however, it is right to say, has been chiefly acquired in this large and crowded city, is decidedly in favor of the tonic and stimulant plan of treatment. I ordinarily rely on the use of bark, which I give from the very commencement of the disease—in the very old or debilitated combining it with tincture of serpentaria, as in the following form:—

R. Tincturæ Cinchonæ Flavæ, drachmas quatuor.
 Tincturæ Serpentariæ, . . drachmas tres.
 Tincturæ Croci, . . . drachmam.
 Decocti Cinchonæ Flavæ, . uncias undecim. Misce.
 Sumat unciam horis sextis.

at the same time giving wine and nourishing diet according to the circumstances of each case.

Treatment by bark has been recommended by Dr

Fordyce, Dr. Wells, and Dr. Heberden. Dr. Jackson, an American physician, has used it in large doses, and Dr. Todd has given it in comparatively small doses. It is not a favorite remedy with Dr. Watson, nor does the Editor recommend its use in these cases. Without going the length to which Dr. Todd advanced, he fully adheres, from experience, to the main principle of the supporting plan advocated by that eminent authority.—See *Clinical Lectures*, Beale's edit., p. 167. This consists in the precise and regular administration of beef-tea, and, *if necessary*, of some alcoholic stimulant in moderate doses. His views on this subject were fully stated in a paper in *The Dublin Quarterly Journal of Medical Science*,¹ and from an earnest conviction of its worth he can endorse the view of Dr. Todd, who said of the supporting plan in the treatment of erysipelas: "It is the best adapted to save life, and check the progress of the disease; and . . . under it, if begun early and with decision, you will seldom have to deal with the secondary phenomena of the malady."

The preparations of iron are by many preferred to those of bark in the treatment of this disease; their mode of action would appear to be similar: the tincture of the sesquichloride, in the dose of from twenty to twenty-five drops every second or third hour, has been especially recommended by Dr. and Mr. Bell, of Edinburgh;² and Dr. George W. Balfour, of Cramond, after using it much in the same way in twenty cases, believes that we now have "a certain and unfailing remedy, whether the erysipelas be infantile or adult, idiopathic or traumatic."³ It must, however, be remembered that the tincture of the perchloride of iron which in the *British Pharmacopæia* represents the tincture of the sesquichloride of the last *Dublin Pharmacopæia*, is only one-fourth of the strength of the latter.

I consider the use of purgatives in the early stages of erysipelas as decidedly objectionable: they tend to in-

¹ "Notes on the Treatment of Continued Fevers and other Acute Diseases."—*D. Q. J. Med. Sci.*, Vol. xxxv. p. 200.

² *Monthly Journal of Medical Science*, June, 1851.

³ *Monthly Journal of Medical Science*, May, 1853, p. 428.

crease the debility, usually so important a characteristic feature of danger, and determining to the mucous membrane of the alimentary canal and to the abdominal viscera, their action prevents the full development of the eruption on the cutaneous surface—a circumstance to be especially avoided in the treatment of all inflammatory diseases of the skin—and thus gives rise to local congestions and transference of the inflammation to some internal organ.

The use of biliary evacuants has been very strongly supported in an excellent practical essay published by Dr. Albert Walsh;¹ the remedy he recommends being tartar emetic, in rather minute doses—one grain dissolved in a quart of some emollient drink, as whey or barley-water, in the twenty-four hours; he continues its use until the eruption begins to fade, when he administers sulphate of quinia and other tonics.

Mr. Lawrence is the chief advocate in the present day for bloodletting and active antiphlogistics; but in his views, as regards the constitutional treatment of the disease, he has very few followers. Dr. Watson, who may be regarded as the most able and moderate exponent of the antiphlogistic school of our day, only advises bloodletting under exceptional circumstances, and then in “the smallest available quantity.”—*Lectures*, Vol. II, p. 919, 4th edit.

If any internal organ be attacked during erysipelas, the most active derivatives to the surface should be employed. Thus, when the membranes of the brain are engaged, sinapisms and blisters should be applied to the legs, and warm stupes to the head; active purgatives also are now indicated, and of these the most valuable is the turpentine enema. When the inflammation seizes on the larynx, leeches, even although great debility be present, should be applied beneath the angles of the jaws, and hot stuping to the throat, with relays of sponges assiduously employed; a blister to the nape of the neck is also here a valuable remedy. The operation of tracheotomy

¹ *Dublin Quarterly Journal of Medical Science*, New Series, August, 1850.

is not applicable in such cases, for the erysipelatous inflammation spreads rapidly downwards through the respiratory tubes, causing copious effusion into their submucous areolar tissue.

When erysipelas affects the scalp, the hair should be immediately cut as close as possible, with the view of keeping the surface cool, and of permitting local remedies to be more easily applied. The local remedy which the Editor has always found most useful and very comfortable to the patient is constant fomentation with flannels first saturated with, and then wrung out of, a hot decoction of poppy heads and chamomiles, or of poppy heads only. Dr. Watson speaks very highly of the latter use, and urges a point respecting it which is frequently overlooked—the necessity for its continuous application, so long as it is soothing to the patient.

In the milder forms of idiopathic erysipelas, the best and only local treatment requisite consists in dusting the inflamed parts freely with wheaten flour or finely powdered starch, which may be conveniently applied from an ordinary dredging-box; the dredging should be repeated several times in the twenty-four hours. It allays the burning pain and irritation, and always proves highly grateful to the patient; therapeutically it appears to act by protecting the surface from the air, and by drying up the discharge as fast as it exudes from any vesications which may have formed. When the vesications are numerous, and the discharge excessive, I have found the addition of a drachm of oxide of zinc and twenty grains of finely powdered carbonate of lead to half a pound of starch, of much advantage. In using this combination the mixed powders should be well shaken each time before the parts are dusted with them, as, in consequence of their specific gravity, the zinc and lead soon sink to the bottom of the vessel in which they are kept. The Editor recommends the daily application of mucilage of starch. Each morning the parts should be sponged with tepid water, and the mucilage applied afresh. He has found this the best local application of many others, and has fully described the results of its use.—See *Dub. Hosp. Gaz.*, Vol. III, 2d Series, p. 72; *Ranking's Abstract*, &c.,

Vol. XXXVII, p. 131; *Dub. Qu. Journ.*, Vol. XXXV, p. 204; and *Med. Times and Gaz.*, Vol. I, 1863, p. 526.

Anointing the inflamed surface with melted lard is by some preferred to the use of dusting powders. Mr. Wilson speaks highly of his experience of it, having first, he says, employed it on the recommendation of Mr. Grantham, whose method is, "to relax the skin with hot water or steam fomentations, and after each fomentation to saturate the inflamed surface with hot lard, which is afterwards covered with wool."

When erysipelas is spreading rapidly, although superficially, over the cutaneous surface, the inflammation still persisting in the parts where it first appeared, inunction with mercurial ointment has in my experience more effect than any other local application in checking its progress. The ordinary mercurial ointment, to every ounce of which a drachm of glycerine has been added, should be smeared thickly over the inflamed surface, and on the sound skin for a considerable distance beyond; it need be applied only twice in the twenty-four hours, and if any symptoms of salivation be produced, its employment should be at once stopped.

Acting as an impermeable varnish, and probably producing some effect also by the compression it causes, collodion has been successfully employed by Spengler and Rapp as a local application in erysipelas; the parts are thickly coated with it by means of a camel-hair pencil, and it is renewed, as often as may be required in consequence of its cracking and peeling off when dry. When the disease affects one of the extremities, bandaging the limb has been used with very favorable results: this practice originated with the Continental School; its action seems to depend chiefly on the equable compression exercised on the congested capillaries and cutaneous veins, whereby they are emptied of the excess of blood contained in them; but some of the good effect produced is also probably due to the protection from the action of the air thereby given.

M. Guernsaut applies once daily, for three days, a preparation composed of 30 parts of collodion to 2 parts of castor oil. The proposal to mix these substances origi-

nated with M. Robert Latour.—*Med. Times and Gaz.*, 27th Nov., 1852, p. 549. M. Aran also applies collodion, but in a ferruginous form, described as made of equal parts of collodion and of ethereal ticture of perchloride of iron.—*Brit. and For. Med.-Chir. Rev.*, July, 1853, p. 277. Mr. Hugh Norris looks on the application of tincture of iodine as a specific; its use was first urged by Dr. Davies, of Hartford.—*Med. Times and Gaz.*, 11th December, 1852, p. 590.

Dr. Goolden, of St. Thomas's Hospital, advises wrapping the parts in a thick sheet of cotton wool, and then smearing with a thick coat of white paint (*Med. Times and Gazette*, 12th November, 1853, p. 502); and Dr. G. Hamilton, of Falkirk, applies a solution of gutta percha in naphtha, and over this he puts thin gutta percha tissue.¹—*Ed. Med. Jour.*, Dec. 1857, p. 512.

Dr. Livezey, an American physician, recommends the application of muslin saturated with strong tincture of lobelia.—*Med. Times and Gaz.*, 14th March, 1857, p. 269.

Phlegmonous and traumatic erysipelas demand more active local medication than when the inflammation affects the superficial layers of the integuments merely. In these forms of the disease many rely on topical depletion by leeches, by punctures, or by deep incisions. While leeches may produce a good effect by withdrawing blood from the inflamed superficial vessels, the determination caused to parts on which their suction power is exerted is to a certain extent productive of mischief. The same objection does not hold with regard to punctures; their employment has been highly advocated, amongst others, by Sir Richard Dobson, by Liston, and by Wilson; they should be made with a lancet, all over the inflamed part, at distances of from a quarter of an inch to an inch, according to the extent of the surface engaged, and penetrate to the depth of a quarter of an inch. As soon as they have nearly ceased to bleed, a warm bran poultice may be applied. Mr. Copland Hutchinson strongly recommended free incisions, and his practice has been

¹ See remarks on Dr. Graves's solution of gutta percha in chloroform, in Chap. XIV. of this work.

adopted by Lawrence, Guthrie, and others;¹ they should be made down to the subcutaneous fascia, and be several inches in length. When there is much deep-seated effusion of the liquor sanguinis, as is so frequently the case in traumatic erysipelas, they are decidedly productive of the best effect, and they should never be omitted when matter has formed.

Nitrate of silver is used in the treatment of erysipelas with two intentions—to check the spread of the inflammation superficially, and to promote resolution in the parts which have been attacked. With the former view a broad line or *cordon* is made on the sound skin, at a short distance from the margin of the inflamed surface, by the application of a solid stick of the nitrate on the part, previously wet with pure water; when the disease is situated on one of the extremities, this line is made to surround the limb completely. Mr. Higginbottom, who amongst English surgeons is the chief advocate for the use of this agent, at first recommended the employment of the solid nitrate to the inflamed surface; but in his observations recently published, and which contain the results of his accumulated experience, he states that he prefers a solution containing a scruple of the salt to a drachm of distilled water. He gives the following direction for its application: “The affected part should be washed well with soap and water, then with water alone, to remove every particle of soap, as the soap would decompose the nitrate of silver, then to be wiped dry with a soft cloth. The *concentrated* solution of the nitrate of silver is then to be applied two or three times on the whole of the inflamed surface, and *beyond it* on the surrounding healthy skin, to the extent of two or three inches.”² In twelve hours, should the erysipelatous inflammation be unaffected, it is to be again applied; when vesications exist, they should be opened previously to the application. I prefer to use the nitrate of silver in the form of ointment, a drachm to the ounce of lard; it thus comes more completely into

¹ See *Med. Chir. Trans.*, Vol. xiv.

² *On the Use of the Nitrate of Silver*, Third Edition, 1865, p. 33.

contact with the inflamed surface, does not dry up so rapidly, and is more easy of application to some parts of the body, as to the scalp.

Sulphate of iron, both in solution and in ointment, has been recommended as a most valuable local application in erysipelas by Velpeau,¹ but I have not seen it prove so useful as nitrate of silver; the solution which he uses contains one part of the salt dissolved in fifteen parts of water, and the ointment consists of one part of the sulphate to three or four of lard. M. Debout (see *Braithwaite's Retrospect*, Vol. XXXI, p. 275) uses from 10 to 20 or 40 parts of sulphate of iron dissolved in 120 to 110 or 90 parts of water, or in 70 parts of glycerine.

Blisters are sometimes employed with success to prevent the spread of erysipelatous inflammation; they are applied at the margin of the affected surface: their effect appears to depend on a new action being excited in the parts, and their use seems to prove especially of service in the erratic form of the disease. The only other local remedies requiring notice are, creasote, which, painted over the surface, has recently proved successful in the hands of some practitioners; and congelation of the surface by means of pounded ice and salt mixed in a bladder, which has been proposed by Dr. Arnott: from the use of the latter it may be apprehended that some internal organ might be attacked. Dr. Delarue (*Med. Times and Gazette*, 4th April, 1857, p. 344) looks upon creasote as a *specific*, and uses this formula: "Creasote, 8 parts; lard, 30 parts; apply every two hours." With reference to Dr. Arnott's proposition the reader may consult, with advantage, Esmarch *On the Uses of Cold in Surgical Practice*. It forms one of the "selected monographs," edited, in 1861, by the New Sydenham Society, and it has been reviewed at length in the *Dublin Quarterly Journal* for Nov. 1862.

Should erysipelas assume a gangrenous tendency, in addition to the internal administration of the most powerful tonics, as wine, bark, and quinia, the parts

¹ See *Med. Times and Gaz.*, Vol. i, 1855, pp. 239, 289, and *Braithwaite*, Vol. xxxi, p. 275.

ought to be enveloped with a charcoal poultice, and afterwards dressed with lint soaked in a lotion containing from one to two ounces of the solution of chlorinated soda or chlorinated lime to the pint of distilled water.

URTICARIA (from *Urtica*).—See Plate II.

URTICARIA (*Nettle Rash*) may be defined to consist in an eruption of irregularly-shaped prominent patches, or wheal-like elevations of the skin, of a yellowish-white or reddish-yellow color, which are surrounded by a diffuse redness, are often evanescent, and are attended with a burning sensation, tingling, and extreme itching. It is non-contagious, and is usually accompanied by a greater or less degree of fever; and it may be either acute or chronic, in the former case lasting for a few weeks, in the latter for months or even years. The name of this disease is derived from the resemblance which the eruption bears, both in appearance and symptoms, to that occasioned by the sting of the common nettle—*Urtica urens*. Willan describes several varieties of urticaria, and numerous subdivisions of it have also been made by other dermatologists; but I think they may all be conveniently classed under three heads:—

Urticaria febrilis.

“ *evanida*.

“ *tuberosa*.

An attack of *Urticaria febrilis* (Plate II, Fig. 1) is ushered in with the ordinary symptoms of mild fever—shivering, headache, hot skin, thirst, loss of appetite, pains in the limbs, and in many cases vomiting. In from twelve to twenty-four hours the cutaneous surface becomes covered with numerous patches of the characteristic eruption, the parts on which it appears having been for a short time previously the seat of a burning sensation, attended with tingling and itching. The wheal-like elevations generally appear simultaneously on various portions of the body—on the face, the neck, over the back, and on the anterior aspect of the arms and legs; they often disappear suddenly, and as suddenly re-

appear on some other part of the skin. They bear much resemblance to the sting of a nettle, being slightly elevated, of a bright red color, with raised yellowish spots or lines; in most cases the itching which attends them is very intense, and accompanied by a burning sensation, and additional patches are produced on the apparently unaffected surface by the patient rubbing or scratching the part. The eruption runs its course generally in from six to eight hours, but to be succeeded by a fresh crop on the same or on different parts of the body—in most cases appearing in the evening—and the outbreak of which is attended, as before, with tingling and itching. Febrile urticaria is thus prolonged for a week or ten days, the eruption being less extensive and the constitutional symptoms less marked with each successive crop; the general febrile symptoms subside to a certain extent when the rash comes fully out, but are usually again somewhat aggravated each time the eruption disappears. The epidermis of the parts which have been affected desquamates in fine mealy scales after the disease has subsided, but no stain or mark is left behind.

When the eruption does not recede and again reappear, as now described, but remains permanently on the surface on which it first presents itself, it assumes somewhat of a more chronic character, lasting for three or four weeks, and is termed *urticaria perstans*. This sub-variety is attended with milder constitutional symptoms, and with less local irritation and itching. In the variety named *conferta* (Plate II, Fig. 2), the local and general symptoms are precisely similar to those of *urticaria febrilis*, but in general more severe; the patches of eruption are numerous, and, coalescing, cover a much more extensive surface of the skin. A form of urticaria has been described under the appellation of *intermittens*, in which the appearance of successive crops of the eruption assumes a regular intermittent type, usually quotidian, sometimes, however, more prolonged, being tertian or quartan, or the rash may not reappear until the end of every seventh, eighth, or ninth day—coming out in the evening, attaining its greatest intensity during the night, and disappearing almost entirely before morning. Willan mentioned

as a variety of this disease, under the name *subcutanea*, what was manifestly chiefly a nervous irritation, there being constant and violent itching of the cutaneous surface, commencing on some spot of one of the extremities, thence extending to the entire limb, to the trunk, and finally over the whole body, with only an occasional eruption of urticaria at distant intervals.

Urticaria evanida (Plate II, Fig. 3) is a chronic form of the disease, which not unfrequently lasts for years; and, although unattended with fever, renders the life of the person who suffers from it almost intolerable, from the unceasingly painful itching by which it is characterized. The eruption appears in small, rounded, reddish-yellow elevations—often two, three, or more such, closely set together, forming a wheal like that caused by the lash of a whip—with little, if any, surrounding redness of the skin; they may appear on any part of the body, but are usually developed by scratching, or by friction of the clothes; in females they are most frequently seated around the neck, where the upper part of the dress rubs the surface, and on the arms, where they are likewise caused by the friction of the sleeves of the dress. The rash generally begins to appear before evening, and is fully developed during the night, fading away before morning. The itching it occasions is most intense, causing absolute suffering, and persons even of the utmost fortitude cannot refrain from scratching violently the parts affected, by which an additional eruption is caused. The wheals do not remain longer on the surface than five or six hours, but they are renewed by the least local irritation, and the disease thus continues for months with occasional intermissions, being always most severe during the summer and autumn. After it has lasted for some time the general health becomes more or less affected, both from the constant irritation it occasions and the derangement of the natural functions of the skin.

Urticaria tuberosa (Plate II, Fig. 4), which is a very rare variety of the eruption, occurs in the form of distinct rounded elevations, about the size of a small walnut, hard and firm, extending evidently into the subcutaneous areolar tissue, of a livid red color, with a yellowish

raised centre. The portion of the integuments affected is stiff, tense, and painful to the touch, or on motion. The tumors generally appear on the extremities, coming out during the night, with pain, much itching, and some fever, and nearly disappearing before morning, leaving the patient weak, tired, and sick. It is essentially chronic in its course, and very obstinate in its duration, sometimes extending to two or three years, or even longer, with short intervals of remission.

Urticaria is of more frequent occurrence in females than in males, which may be accounted for by its seldom attacking any but those whose skin is fine and delicate; for the same reason, while it appears not uncommonly in infants and children, it is not a disease of advanced life. The *causes* by which the febrile form is produced are, in most cases, well marked, but those on which urticaria evanida and urticaria tuberosa depend are not so manifest. A marked connection exists between the appearance of this eruption on the cutaneous surface and derangements of the digestive organs, or rather the irritation caused in some persons by certain indigestible articles of food. Shell-fish, especially mussels, oysters, crabs, cockles, periwinkles, and shrimps, have been long noted as producing urticaria in many individuals, the eruption appearing in a few hours after any of them may have been eaten. Similarly it has been seen to arise after the ingestion of pork, veal, or goose, of salted, spiced, or dried meats or fish, of cheese, of honey, of many fruits and vegetables, particularly gooseberries, cucumbers, melons, mushrooms, pickles, &c. I know two persons in both of whom urticaria appears in half an hour after they have eaten almonds or nuts, if the brown skins had not been previously removed. In all these cases the occurrence of the eruption must be due to some individual idiosyncrasy, with the nature of which we are unacquainted. The use of certain medicines, especially of copaiba or valerian, sometimes gives rise to this disease; in one instance which I witnessed, copaiba was given to a woman who was at the time suckling her infant, and urticaria appeared both on herself and on her child. Frank mentions his having seen it occur from

drinking Seltzer water. In the case of a boy, aged 15, who was admitted into Jervis Street Hospital in the month of December, 1851, for acute pleuritis, a copious eruption of urticaria appeared over the face, the upper extremities, and the trunk, on the third day after his admission; the feverish symptoms had commenced to subside, and his system had been brought under the influence of mercury the day previously.

Urticaria has been often noticed as occurring in connection with other febrile diseases, especially with rheumatism; and Dr. Graves has pointed out the connection which exists between rheumatism, deranged conditions of the liver, and this eruption.¹ In children it frequently appears at the periods of dentition, being evidently associated with the gastric irritation which then occurs. Many have described some of the forms of this disease as being caused in the female sex by deranged states of the menstrual function; but my experience is quite opposed to this view.

Urticaria occasionally appears as a complication of other cutaneous eruptions, more particularly eczema, impetigo, prurigo, and lichen; and Mr. Balmanno Squire believes that acute cases are sometimes occasioned solely by the presence of the *Acarus Scabiei* in the epidermis.

The *diagnosis* of urticaria cannot be attended with any difficulty, its local characteristics are so well marked. From erythema it is well distinguished by the absence of the diffuse redness of the cutaneous surface, and by the intense itching which accompanies it. Erythema nodosum might be mistaken for urticaria tuberosa, but the evanescent character of the latter, even in its most chronic form, suffices to diagnose it; the former also is marked by the presence of acute febrile symptoms. Roseola, the only other of the exanthemata which might be confounded with febrile urticaria, is not attended with the intense itching of this disease, and also differs considerably in the color and appearance of the eruption. One of the varieties of lichen has been termed *urticatus*, in

¹ *Clinical Medicine*, Second Edition, Vol. i, p. 446, and Reprint of Second Edition, 1864, p. 339.

consequence of the troublesome stinging by which it is accompanied, owing to which symptom it has been occasionally mistaken for and described as a form of urticaria, but it is a distinctly papular eruption.

The *prognosis* in any of the forms of urticaria must be favorable, as may be understood from what has been already said. A few fatal cases of the disease, it is true, have been recorded by some of the older writers, but that they were instances of this eruption uncomplicated with an internal organic affection may well be doubted. We have, however, the testimony of Willan that a case fell under his observation in which death occurred from the *sudden* retrocession of the eruption about the fifth day; but the patient was a very intemperate man, and had suffered from great pain in the stomach, and nausea, which were much relieved when the cutaneous eruption came out, and delirium and high fever followed its sudden disappearance.

The seat of urticaria is in the superficial layers of the derma and the epidermis; as regards its *pathology*, it seems to be chiefly an affection of the nerves of the skin. Dr. Gull supposes the wheals to be caused by a contraction of the muscular tissues of the skin; and he grounds this idea on the fact that if two scratches be made side by side the wheals produced by them approximate, while "by stretching the skin the wheal could be obliterated apparently by overcoming the contraction of the muscular tissue."—See *Guy's Hosp. Rep.*, V, p. 88 (1859). From an analysis of the urine by Dr. Douglas Maclagan, of Edinburgh, he came to the conclusion that urticaria is intimately connected with a deficiency of the organic salts of the urine—urea and uric acid—and their probable retention in the system; and the correctness of this opinion is favored by the connection, already adverted to, which exists between this disease and rheumatism.

Treatment.—The febrile form of urticaria requires the employment of antiphlogistic purgatives, and diaphoretics, or, should the fever run very high in full habits, local or general bleeding [? Ed.] may even be requisite. The best purgative is the sulphate of magnesia, given in the acid infusion of roses, with an excess of acid; thus

an ounce of the salt may be dissolved in twelve fluid-ounces of the acid infusion, and to it two fluidrachms of dilute sulphuric acid should be added; of this the dose is a sixth part every third hour until the bowels are freely moved: the purgatives should be repeated every second day as long as the feverish symptoms have not subsided. Nitre whey, given at bedtime, forms a good diaphoretic, or two drachms of the water of the acetate of ammonia may be added to the whey instead of nitre. Acting on his view of the pathology of the disease, Dr. Maclagan has treated it with colchicum;¹ and this medicine is certainly indicated when the eruption is complicated with rheumatism.

When urticaria is produced by eating any particular article of food, an active and immediate emetic, such as the sulphate of zinc, or ipecacuanha, should be at once administered, and its action followed by the exhibition of a mercurial cathartic; if the subsequent fever be well marked, bleeding may be required, but only a small quantity of blood should in any case be withdrawn, as general symptoms of poisoning, with much depression, not unfrequently follow.² The intermittent form of the disease requires to be treated constitutionally with tonics and antiperiodics, especially the preparations of bark, the bowels having been first freely acted on by a saline cathartic; this variety of urticaria may occasionally be cut short by the administration of an emetic a few hours previously to the expected reappearance of the eruption.

In urticaria evanida, a lowering plan of treatment is decidedly contraindicated, as the disease invariably assumes a chronic form. I have derived especial benefit in it from the use of preparations of iron, and from the administration of Dover's powder; of the former the compound iron mixture may be generally prescribed in doses of from one to two ounces every morning, or from twenty to sixty minims of the tincture of the perchloride, three times a day, in an ounce of the infusion of quassia

¹ *Monthly Journal of Medical Science*, Jan. 1852, p. 57.

² The Editor cannot coincide in Dr. Neligan's recommendation to bleed here, were it for no other reason than the possible subsequence of poisonous symptoms, against which he cautions the practitioner.

or calumba, or two ounces, twice daily, of Bewley's *aqua chalybeata*; of the latter, from eight to twelve grains every night at bedtime. Under the administration of these combined remedies I have seen most obstinate chronic cases of the disease yield in a few weeks; while administering them, the bowels should be kept freely open by mild saline purgatives. *Urticaria tuberosa* should be treated similarly; but in cases in which the disease has been of very long standing, it will occasionally only yield to the prolonged administration of arsenic. When any of the forms are connected with or complicated by the presence of any other disease, the treatment ought to be modified accordingly.

The itching and tingling of urticaria are somewhat allayed by the use of the warm bath; but as soon as the skin is dried afterwards, these painful sensations are augmented in consequence of the friction of the surface requisite to remove the moisture. In febrile urticaria I have employed, as a local application, with much effect, the following alkaline spirituous wash:—

R. Carbonatis Potassæ,	. .	grana triginta.
Aquæ Sambuci,	. .	uncias undecim cum semisse.
Spiritus Vini Rectificati,	. .	semi-unciam. Misce.

Pieces of lint saturated with lotion should be laid on the parts where the itching is most troublesome. In the chronic forms of the disease, chloroform is an excellent topical remedy for the same purpose; an ointment of it, prepared by rubbing together half a drachm of chloroform and an ounce of cold cream, should be smeared rather thickly over the affected surface. Lotions and ointments, containing prussic acid, opiates, and other narcotics, have proved successful in the hands of others.

In urticaria occurring in infants and children, the state of the digestive organs demands especial attention, and in all cases, whether the teeth are appearing or not, the gums should be lanced; in infants at the breast, the health of the nurse is in particular to be attended to; the local irritation, at this early age, may be allayed by sponging the surface of the body with a warm infusion of chamomile.

Whenever the sudden retrocession of the eruption in urticaria is attended with evidences of derangement of any internal organ, the hot bath should be used, with friction over the surface, and blisters applied to the epigastrium and nape of the neck.

As regards the diet in urticaria, the chief point to be attended to is the avoidance of the use of any food which, from individual experience, has been found to produce the eruption. In the acute forms of the disease the patient should live low; but when it becomes chronic, the food should be nourishing, yet not rich or heating.

ROSEOLA.—(Plate II.)

ROSEOLA (*Rose-rash*¹) is by many dermatologists regarded as being merely a variety of erythema, erysipelas, or measles, and its existence is a distinct eruption not admitted; but I fully agree with Willan that its local characteristics are sufficiently well defined to separate it from any of these diseases, and to require a special description. The name, which has been applied to it in consequence of the peculiar rose-color which it usually presents, is to a certain extent objectionable, as this color varies much in the different stages and forms of the eruption. It consists in the appearance of very slightly elevated rose-red patches, of irregular shape, transient, fading at times, and again reappearing; non-contagious, and attended with some degree of fever. The various forms of Roseola may be classed under two heads:—

Roseola idiopathica.

“ symptomatica.

An attack of *Roseola idiopathica* (Plate II, Fig. 5) is usually attended with slight fever, which, however, in children is sometimes well marked and severe; the febrile symptoms subsiding to a great extent when the eruption appears freely on the skin. It comes out in numerous reddish-yellow patches, which soon assume a

¹ In Scotland erysipelas is commonly termed “The Rose,” which has caused this eruption to be occasionally confounded with it.

roseate hue and are irregularly distributed over the cutaneous surface; generally appearing first on the face and neck, and spreading quickly thence to the trunk and the upper and lower extremities; occasionally the eruption is confined to the face, neck, and trunk, and at times it occurs on the extremities only. The rash is often very transient, disappearing completely in from twenty-four to forty-eight hours—when the feverish symptoms become aggravated, and reappearing again within the next twelve hours, it usually runs its course in from five to seven days, terminating with slight epidermic desquamation. When roseola occurs in infants and children, it is not unfrequently attended with more or less tumefaction of the integuments, which precedes the appearance of the eruption, being most marked in those places where the rash is to come out.

Two forms of the disease have been described under the names *æstiva* and *autumnalis*, from their appearing at these seasons of the year: in the former, the feverish symptoms sometimes run high, and are attended with more or less sore throat, which, on inspection, is seen to be somewhat swollen and of a bright rose-red color—the rash, too, is very generally distributed over the cutaneous surface; in the latter, the eruption is of a duller hue, in smaller-sized patches, and attended with very slight fever or sore throat—this symptom, however, being often absent. When the disease attacks infants, it has by some dermatologists been described as a distinct form, and termed roseola *infantis*; it is in them usually very mild, and disappears in a few days; but in some cases is marked by itching, as would appear from the annoyance it seems to give the little patient; it is then also more prolonged.

The eruption in idiopathic roseola not unfrequently appears in the form of rings or circles, of a bright rosy hue, surrounding a healthy portion of the skin which is unaltered in color; it is then termed roseola *annulata*. (Plate II, Fig. 6.) This is a more aggravated form of the disease, setting in with well-marked symptoms of fever, a distinct shivering fit, followed by sickness of the stomach, headache, pains in the limbs, and hot skin, pre-

ceding the appearance of the eruption for from twenty-four to forty-eight hours; oedema of the integuments is also not uncommon in this form, particularly in children, in whom the disease usually occurs, appearing especially should the eruption suddenly retrocede. In one case which I attended in 1849, that of a boy aged six years, the entire body became enormously swollen on the sudden disappearance of the rash, so much so that both eyes were closed, and there was great difficulty of breathing and of swallowing, owing to the tumefaction of the fauces. This variety of roseola may appear on any part of the cutaneous surface, but is most frequently seen on the lower extremities, and the trunk of the body. It comes out in the form of numerous small, round, reddish patches, which, rapidly spreading by their circumference, assume the character of rings, some being quite circular, and others irregularly so; the central portion of healthy skin, which at first is only a few lines in diameter, gradually extends to half an inch, or even two inches, the surrounding rose-red eruption being from a quarter to half an inch in width; sometimes two or three of the rings, meeting, coalesce, and may thus extend beyond one of the joints, or nearly round a limb. Heat of the skin and itching generally accompany this form of roseola.

Mr. Erasmus Wilson describes a variety of roseola under the name of *punctata*, in which the eruption, attended with fever of a subacute type, appears on the mucous membrane and skin, "on the latter, in the form of small red spots around the mouths of the follicles, then becoming diffused so as to cover the greater part of the body, reaching its height on the third day; at first of a bright raspberry-red color, afterwards acquiring a dull roseate hue, the dulness increasing with the progress of the decline." The disease lasts for ten days. He speaks of it as a rare disease, having seen only a few examples; I never met with it as an idiopathic affection, but I have seen syphilitic roseola present these characteristics. Dr. Tilbury Fox (*op. cit.*, p. 64) suggests the question: Is it a form of measles?

Roseola symptomatica occurs in the course of, or as an accompaniment to, many febrile diseases, but its charac-

ters are so similar to those of the idiopathic form as not to require a distinct description. It is thus witnessed in smallpox—the eruption of which it usually precedes by about twenty-four hours—cow-pock, fevers, acute rheumatism, epidemic cholera, &c.; and as it may attend any of these diseases, it has been named by dermatologists *R. variolosa*, *R. vaccina*, *R. miliaris vel febrilis*, *R. cholericæ*, &c. When the practice of inoculation prevailed, roseola is described as appearing very regularly on the second or third day of the fever incubation, and was regarded as a favorable sign, indicating that the variolous eruption would be mild. In cow-pock it occurs about the period of maturation of the vaccine pustule, spreading from it along the arm, and often appearing also on the trunk; it is not of very frequent occurrence, is of a very mild character, and fades away in two or three days. Its appearance during either fever or acute rheumatism is rather a favorable sign than otherwise; it does not require any special treatment, nor does it interfere with that of either of these diseases. The cholera exanthem has been described by Kier, Babington, and Rayer, all of whom witnessed it in the epidemic of 1832; it accompanied the fever of reaction, and its appearance does not seem to have in any way influenced the progress of the disease.

Roseola may occur at any age, but is more frequent in the young than in the old. It may be *caused* by any local irritation of the skin, or by any circumstance acting on the system generally, which gives rise to determination of blood to the cutaneous capillaries; the latter is evidently the cause of the symptomatic form of the eruption. In summer it is occasioned by exposure to a hot sun when the digestive organs are deranged, or by the perspiration being suddenly checked; its frequent occurrence in autumn is traceable to the gastric irritation which is at that season of the year so frequently caused by the too free use of fruit and new vegetables. In children it commonly appears about the periods of first and second dentition, and is manifestly connected with the derangements of the system which then so commonly

exist; and in infants it is usually occasioned by the nurse's milk disagreeing with the child.

With regard to *diagnosis*, roseola is an important disease, as it is very liable to be mistaken for either measles or scarlatina. From the former it is distinguished by the color of the eruption, so different when it is fully developed from the dull red hue of measles, by its not assuming the crescentic or horseshoe shape, and by the absence of the catarrhal fever. From scarlatina, with which, in consequence of the sore throat, it is in its early stage apt to be confounded, the color of the rash, its appearing in patches or spots, and not being generally diffused over the surface, the comparatively mild character of the fever and of the attendant sore throat, and the absence of the burning heat of the skin, are sufficient to diagnose it. The distinguishing characteristics between roseola and erythema nodosum are, the elevation, the color, and the peculiar shape of the latter; and the chief diagnostic features between it and urticaria are, the absence of the intense itching and of the wheal-like eruption.

The *prognosis* in roseola is always favorable; the eruption being attended with but slight annoyance, disappearing generally in the course of ten days, though occasionally prolonged for three or four weeks; but in all cases it is a simple affection, and one attended with little or no danger, and in many febrile diseases its occurrence is manifestly salutary.

The *treatment* of the disease is simple: rest in bed, or even confinement to the house, with low diet, the use of diluent drinks, and, when the eruption is well out, mild purgatives, being sufficient in most cases to effect a cure. Mercurial seem better adapted than saline purgatives for the treatment of roseola; with infants and children the hydrargyrum cum magnesiâ appears especially to agree. Should the fever run high, and the eruption be slow in coming out, the warm bath will prove of service; it should be always used with children. When there is oedema of the surface, small doses of the spirit of nitric ether and of the water of the acetate of ammonia are prescribed with benefit. In chronic cases, or in weakly

habits of body, should the disease become chronic, vegetable tonics and the mineral acids are indicated. If much itching or heat of surface attends the eruption, it will be allayed by a weak alkaline spirituous wash, such as the following:—

R. Boracis, grana triginta.
 Aquæ Sambuci, uncias undecim cum semisse.
 Spiritus Rosmarini, semi-unciam. Misce.

In most cases, however, no local application, except the general warm bath, or sponging the skin with warm water, will be needed. Symptomatic roseola requires no special treatment apart from the disease which it accompanies, and the employment of any which might repel the eruption from the surface should be especially guarded against.

RUBEOLA.

RUBEOLA, or Measles (from *Rubeo*); also called Morbilli; Rougeole of the French; Masern of the Germans.

Measles is a contagious affection, occurring once during life; and is characterized primarily by acute catarrhal fever, and secondarily by the appearance, on or about the *fourth* day, of a peculiar exanthem or cutaneous eruption, followed by desquamation. This eruption appears in the form of small red spots, frequently arranged in the figure of segments of circles, and occurs first on the face and neck, and upper extremities; next on the body, and lastly on the lower extremities. The rash is punctiform, sometimes papular, and about the sixth day becomes vesicular. It begins to fade generally about the seventh day, and about the tenth is followed by desquamation, which usually begins on the face and neck, and thence extends over the body. This desquamation occurs in the form of small scales, or of large flakes; and not uncommonly the cuticle of the hands and feet comes off in the shape of gloves and socks.

The time which elapses between the appearance of the disease and the exposure to contagion is about twelve days, and is called *the period of incubation*. Dr. Watson very forcibly observes that “the eruption is the *distin-*

guishing feature of measles, but the catarrhal affection is, in every way, the *most important*."—Lecture LXXXVIII.

Several *varieties* of Rubeola have been noticed: thus the typical form just described is by some called Rubeola vulgaris. Rubeola maligna is a name given to the disease when it is ushered in by severe febrile symptoms, which soon assume the typhoid character, while the eruption alternately recedes and reappears. When this receding and reappearing form of the eruption is of a dark or livid color, interspersed with petechiæ, the affection is sometimes called Rubeola *nigra*. Rubeola *sine catarrho*, one of the varieties of Willan and Bateman, is a very mild form in which catarrhal symptoms are absent. Rubeola *sine exanthemate* is the name given by Mr. Wilson to the "febris morbillosa" of Sydenham, and is the term applied to a comparatively rare class of cases in which the peculiar eruption is absent. By many these distinctions are regarded as unnecessary refinements; and the Editor is of opinion that for all practical purposes Rubeola may be subdivided, according to the teaching of Dr. Thomson, into *R. vulgaris* and *R. maligna*. The *prognosis* is favorable in the former, but unfavorable in the latter. Dr. Babington described before the Epidemiological Society of London (2d May, 1864) an anomalous form, which he termed Rubeola *notha*—bastard measles. Dr. Fox notes that "by some it was thought to be lichen urticatus." It differs from the typical Rubeola in not having the rash general and crescentic. In the *American Journal of Medical Sciences*, July, 1862, Dr. Salisbury, of Newark, Ohio, describes a form of *camp measles*, which he attributes to sleeping on mouldy straw. His observations are chiefly to the effect that the influence of the fungi of wheat straw on the human system is, in fact, a poison generated by the mouldy straw, and giving rise to a disease identical with measles. In the October number of the same journal (1862) Dr. Salisbury treats of the prophylactic power which the inoculation of straw fungi exercises in those exposed to the contagion of measles. In the *Dublin Quarterly Journal* for February, 1863, Dr. Henry Kennedy, of this city, gives a very remarkable case in point, in which the patient was poisoned by having some flax-

seed meal suddenly thrown into the eyes and throat. He also remarks that Dr. Kidd, of this city, made some flax-seed meal mouldy, and then, by the aid of the microscope, detected in it fungi "very like, if not identical with, some of those figured in the plate of Dr. Salisbury."

Measles may occur at any age, but is most common in infancy and childhood; as a general rule it does not attack the same person twice, but the Editor knows the exceptions to this rule to be frequent enough. It is most to be apprehended in winter and spring. As already suggested by the papers of Drs. Salisbury and Henry Kennedy, its *exciting cause* is believed to be due to a specific contagion, and it is one of the *zymotic* diseases of some modern writers.

The *sequelæ* of Rubeola are most important to the practitioner; among these have been enumerated—pneumonia, œdema of the lungs, bronchitis, pleuritis, tracheitis or croup, phthisis, diarrhœa; aphthæ and gangrene of the mucous membrane of the mouth; and in those of a strumous diathesis, affections of the mesenteric glands, of the eyes, the ears, and the parotid glands. Many cases of phthisis may be traced to a strumous habit which was first developed after an attack of measles, in previously healthy children; and many suffer from delicate health through life from the results of the sequelæ of measles. The *prognosis* is in general favorable, but it depends largely on the nature of the sequelæ.

• *Diagnosis*.—The catarrhal fever, the characteristic eruption, and the day on which that eruption appears, sufficiently distinguish it from scarlatina on the one hand, and from variola on the other.

The treatment of measles resolves itself, for the most part, into the treatment of febrile catarrh or of bronchitis. The latter frequently becomes pneumonia, and so causes death. In cases which recover, spontaneous diarrhœa, if not excessive, is a favorable symptom and should be looked for. If it has not supervened, it may be induced by mild laxatives; but should it prove excessive, the use of pulvis cretæ aromaticus cum opio will be found beneficial.

In the severe or malignant cases in which the eruption

disappears, it may be sometimes restored by the use of the warm bath, stimulating liniments, and mustard poultices. Blisters applied to children in measles, frequently produce gangrenous sores, and therefore, except absolutely necessary, had better be avoided. Dr. Watson advises that when applied, a piece of silver paper should be interposed between the blister and the skin, or that the blister should only remain on for three or four hours, and be followed by a poultice which will cause the cuticle to rise.

The Editor recommends the interposition of a piece of gauze or other material of which ladies' caps are made, between the blister and the skin. The counter-irritant action of the tinctura iodi, made of double strength, may also be recommended. Mr. Wilson lauds as a specific Dr. Charles Witt's treatment by carbonate of ammonia. After a clearance of the bowels, five grains of carbonate of ammonia, in solution in water, broth, or milk, are administered every three hours, or oftener, according to the severity of the symptoms. When a manifest improvement takes place the dose is reduced, but is continued until health is restored. During its use there should be a total abstinence from acids (Witt, Charles—*An Effectual and Simple Remedy for Scarlet Fever and Measles, &c.*, 1862). See also Dr. Graham, of Epsom, Surrey, *On the Treatment of Scarlet Fever and Measles with Sesquicarbonate of Ammonia*, 1861. The Editor is aware that carbonate of ammonia is very useful; but in his experience it is only so when *perfectly fresh*; it should therefore be made in very small quantities of solution; as if it be not fresh it is next to useless.

As has been already remarked, a full and complete treatise on Rubeola must be looked for in works on general medicine, such as those of Hughes Bennett, Aitken, Tanner, and in the widely-known work of the Chrysostom of our profession, Dr. Watson, of London.

A great deal of valuable information of a literary and antiquarian character, with references to numerous old writers, will be found in Dr. Parkes's edition of Dr. Thomson's work; and in Mr. Wilson's recent *Student's Book* will be found a valuable summary of most of our

modern knowledge of the subject. That much of our knowledge is not *new* the reader of the Arabian Rhazes on the smallpox and measles will very soon perceive.

SCARLATINA.

Scarlatina; Scarlatine of the French; Scharlachfieber of the Germans; *Anglicè* Scarlet Fever.

SCARLATINA is a contagious affection, occurring once during life; and is characterized primarily by general febrile symptoms and sore throat, and secondarily by the appearance, on or about the *second* day, of a scarlet cutaneous eruption, followed by desquamation. The *period of incubation* is from two to ten days.

In England there is a popular difference, unknown in this country, drawn between *Scarlet Fever* and *Scarlatina*; the latter being the name applied to the milder forms of the disease.

There are four varieties of scarlatina usually described: *S. simplex*; *S. anginosa*; *S. maligna*; and *S. sine exanthemate*.

S. simplex, which is characterized by a slight inflammation of the fauces, sets in with febrile symptoms, and generally on the *second* day a brilliant scarlet efflorescence is observable on the face and neck and upper extremities; extending thence all over the body. This rash is brightest in the evening when the fever is highest. The skin is rendered pale by pressure, on the removal of which the color immediately returns; and when the eruption is at its height it may be likened to the color of a boiled lobster. In a day, or two days, the efflorescence becomes partial, is seen in patches, and does *not* disappear under pressure. The skin is mostly rough to the touch, and is sometimes studded with miliary vesicles; this is called *S. papulosa vel milliformis*. When the eruption is smooth, from œdema of the skin, the affection is termed *S. plana vel levigata*. When vesicles and pustules coexist, it is termed *S. vesicularis, vel phlyctænosa, vel pustulosa*. The rash of *S. simplex* generally declines on the *fifth* day, and does so gradually until the *eighth*, when it disappears.

Desquamation generally begins on the *fifth* or *sixth*

day. The cuticle peels off in flakes from the body and limbs, and in large scales, sometimes in shape like gloves or socks, from the hands and feet. Great itching and tenderness of the skin frequently accompany this process.

The *prognosis* in *S. simplex* is generally favorable, especially if the throat affection be slight, if hemorrhage from the nose or a critical diarrhoea occur.

Scarlatina anginosa, or Fothergill's sore throat, is an aggravated form of *S. simplex* in which the throat and adjacent parts are severely affected, while the skin eruption is more deeply colored and spreads over the surface in a very rapid manner. Externally the submaxillary glands are enlarged and painful to the touch. Internally the fauces and adjacent parts are of a florid color, while the tonsils are soft and the palate and uvula enlarged. The tongue is coated with white mucus, and studded with red papillæ. Thick mucus collects at the back of the throat, and sometimes almost suffocates the patient, whose deglutition is rendered very difficult. Sometimes gangrenous sloughs take place, and a purulent discharge issues from the nostrils and ears. Besides general debility and languor, acceleration of pulse, loss of sleep and failure of appetite, and sometimes delirium, the secretion of urine is very scanty; and anasarca, either alone or with ascites or hydrothorax, speedily makes its appearance.

The *prognosis* in *S. anginosa* is not by any means so favorable as in *S. simplex*.

Scarlatina maligna, or putrid sore throat, may be described as *S. anginosa* very much aggravated; and is characterized by grave typhoid symptoms, with extensive ulceration of the fauces and parts adjacent, while the exanthem is imperfectly developed. The *prognosis* is very unfavorable, as the disease, often the typical scarlatina of an epidemic, is highly fatal.

Scarlatina sine exanthemate is, simply, a mild form of sore throat with febrile symptoms, but without the characteristic eruption of the typical forms. It occurs mostly in persons who have previously had scarlatina: and the Editor's experience leads him to believe it to be most frequent in adults during the prevalence of an epidemic; while few can doubt its property of communicating the typical disease to the "unprotected."

Diagnosis.—Scarlatina is distinguished from Rubeola by the absence of catarrhal symptoms, by the different color of the exanthem, and by the time at which the eruption appears. It is distinguished from Variola by the character and time of appearance of the eruption, and by the absence of angina in the latter disease.

Treatment.—*S. simplex* and *S. sine exanthemate* may be treated by keeping the patients cool and quiet; using light diet, acidulated and saline drinks, preceded, in some cases, by an emetic and a gentle purgative. *S. anginosa* must be treated on the general principle of endeavoring to reduce the inflammation of the throat and general febrile action without unduly lowering the strength of the patient. The best *local* applications, according to the Editor's experience, are—cold affusion, poultices, ice, and a strong solution of nitrate of silver. In the type of Scarlatina which has prevailed of late years in this country, constant support with beef-tea, and in some cases with wine, is necessary, if the patient is ever to reach the stage when tonics may be given with advantage. *Scarlatina maligna* must be treated on the general principles adopted in cases of typhoid fever. Locally the throat must be treated by the use of strong astringent and stimulating gargles, or by the application of nitrate of silver. Dr. Watson recommends a drink of chlorate of potash, and the Editor has always found this to be most useful. Two drachms of the salt are dissolved in two ounces of hydrochloric acid, diluted with two ounces of water. The mixture must be kept in a stoppered bottle and in a dark place: of it two drachms may be added to a pint of water, and a dose of half an ounce or one ounce given every hour or two hours. The use of carbonate of ammonia is very popular with some in this disease. The plan has been already described when treating of Rubeola.

The *sequelæ* of scarlatina are much to be dreaded, leading, as they often do, to diseases of the kidneys, eyes, ears, and chest. For full information as to all these, and as to the question of contagion, the reader must refer to the works on general medicine already noted, and to the following among many monographs:—

Hood, Peter, *The Successful Treatment of Scarlet Fever and Affections of the Throat, &c.*, Lond., 1857; Kennedy, Henry, *Some Account of the Epidemic of Scarlatina which Prevailed in Dublin from 1834 to 1842, &c.*, Dublin, 1843; Cremen, David, "Report on the Epidemic Scarlatina which visited Cork in 1862, &c."—(*Dub. Quar. Jour. Med. Sci.*, May, 1863); the works of Drs. Witt and Graham noted under Rubeola; Cummings, W. J., "Remarks on Scarlatina"—(*Dub. Quar. Jour.*, Feb., 1865); and O'Connor, Professor (Queen's Coll., Cork), "On Contagion Viewed Practically"—(*Dub. Quar. Jour.*, Feb., 1864).

Rosalia is a disease which, according to Dr. Tilbury Fox (*op. cit.*, p. 67), "stands midway between roseola and scarlatina." Dr. Copland included it under the term Roseola, and Dr. Richardson gave a description of it to the Epidemiological Society, on the 3d of Nov., 1862.

It differs from scarlatina by reason of the non-affection of the throat, the absence of kidney disease, and desquamation; from Rubeola by the absence of its peculiar eruption, and of coryza, &c. It resembles scarlatina in its pyrexia, followed by a rash somewhat resembling the eruption of that disease; and it is not unlike Rubeola in having the mucous surfaces affected, and the conjunctivæ suffused. Dr. Richardson considers the alimentary canal its prime seat, and supposes the efficient agency to be a non-volatile acid in the blood. In the Cork Fever Hospital the Editor has frequently seen this affection, which was popularly considered to be a mild mixture of measles and scarlatina when both were simultaneously prevalent, just as he has frequently observed fever cases which could be said to be neither typhus nor typhoid, but to have prominent symptoms of both, without the distinctive features of either.

VARIOLA.

VARIOLA (from *varus*, a pimple), Petite Vérole of the French; Blattern of the Germans; *Anglicè*, *Smallpox*.

Smallpox is a contagious affection, occurring once during life; and is characterized primarily by an acute

febrile attack, and secondarily by the appearance on the *third* day of a peculiar exanthem or cutaneous eruption, frequently, if not generally, preceded by slight erythema. The following species are generally enumerated: *Variola discreta*, *V. confluens*, *varioloïd*, and *Variola sine eruptione*.

Variola discreta, or distinct smallpox, is ushered in by general febrile symptoms, in which pain in the back and loins, and nausea are very prominent. On the *third* day the face and neck become more or less studded with minute scattered papulæ, which during that and the *fourth* day extend all over the body. On the *fifth* day the papules become vesicles, and the eruptive fever abates. On the *sixth* day the mucous membranes generally become affected, and on them (*e.g.* in the mouth) may be seen minute white spots. On the *eighth* day the vesicles become pustules; and the face becomes so swollen as sometimes to close the eyes, giving the patient a horrible and revolting appearance. By the *eleventh* day the pustules have attained their full size the swelling abates in the face, but travels to the hands and feet. The pustules soon discharge, leaving crusts on the face; the places of these are often occupied by seams and "pits;" while the face for some time after retains a semi-purple dusky appearance.

The *period of maturation*, technically so called, is the time occupied by the change of vesicles into pustules. The *secondary fever*, a set of symptoms marked by sleeplessness, quick pulse, unhealthy urine, and mostly by delirium, sets in on or about the *eighth* day.

Variola Confluens.—Confluent smallpox is ushered in by a more intense fever than *V. discreta*. The fever increases up to the period of maturation; the *secondary* fever is more severe, sometimes typhoid, and accompanied with coma and delirium; diarrhoea and salivation also occasionally occur.

The eruption is commonly preceded by erythma of the face: the pustules coalesce; maturation occurs early; and instead of pus a fluid called "brownish ichor" is sometimes discharged from them. The pustules also are flattened and irregularly formed; severe inflammation and sloughing sometimes attack the surrounding parts; the

fever becomes more typhoid in character; the eruption becomes livid; the patient dies about the eleventh day; or recovers, deeply and permanently pitted and scarred.

The period of *incubation* in variola is reckoned at from five to twenty days.

Varioloid, or modified smallpox, occurs in cases where the patient has had the more severe form previously, or has been vaccinated; it is also caused by *inoculation*.

Variola sine eruptione.—The variolous fever of Frank and Sydenham consists of the fever and mucous congestion of variola without the vari. Mr. Wilson thinks its occurrence is "rare," and the Editor believes it to be so rare that it may be reckoned a mythical disease.

The *cause* of variola, as shown in works on general medicine, is clearly *contagion*.

The *prognosis* is generally favorable in the *discrete* variety, but unfavorable in the *confluent*.

The *sequelæ* are abscesses, ulcers, boils, sloughing, blindness, deafness, and many acute diseases.

Diagnosis.—In the Editor's experience there is scarcely any use in attempting a differential diagnosis of variola from rubeola and scarlatina at the commencement of the attack; but the character of the eruption, and the time at which it appears, will sufficiently distinguish it from rubeola on the one hand, and from scarlatina on the other.

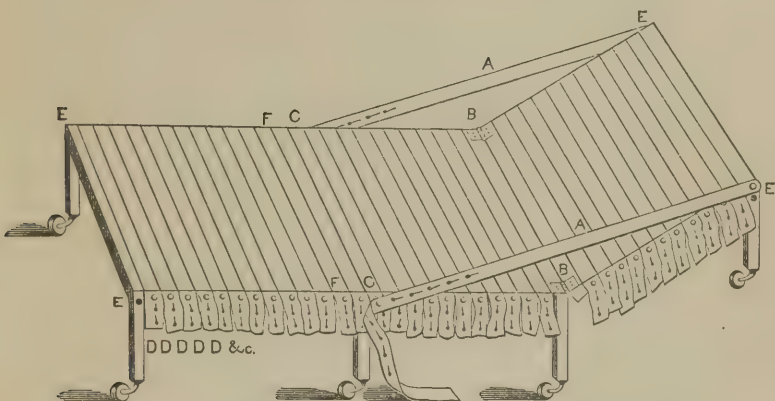
Treatment.—The general treatment must be conducted on the principles acted on in febrile affections. The Editor's experience, however, has led him to reject the lowering plan, and to adopt that of a fair and moderate support, avoiding alike the opposed extremes of depressants and undue stimulants. Each symptom must be met as it appears, and be treated accordingly; due regard being had to the special nature of the disease. Beyond the general line of treatment above indicated little can be said in so brief a notice as this. Yet one point must not be omitted—a notice of the *secondary fever*. This must be treated by full doses of opium, where any degree of irritation is present; and the value of the drug is so widely acknowledged under these circumstances that it may be almost termed a *specific*.

The *local treatment* of variola is a subject on which many write, and about which perhaps there is more variety than difference of opinion. During the eruptive fever, cold or tepid sponging is grateful to the patient, who, so far as the Editor's experience goes, generally prefers the tepid to the cold application. When the face swells, blisters are sometimes placed behind the ears, and leeches applied to the temples; blisters are also applied to the throat, which is gargled where there is difficulty of swallowing. When the eruption recedes, counter-irritants are employed as in typhus fever. During convalescence, which begins about the twentieth day, warm baths should be repeatedly used. To *prevent pitting* numerous plans have been suggested. They have been concisely classed by Dr. Guy, as: 1. Those which consist in protecting the parts from the air; 2. Those which let out the contents of the vesicles before they have changed from lymph to pus; and 3. Those which excite common in lieu of specific inflammation. The last-named plan consists in applying nitrate of silver or tincture of iodine to the pustules. The second consists in puncturing the fully-developed vesicles, and absorbing their contents with soft cotton. The first is that most generally followed. Mercurial ointment, powdered starch, collodion, glycerine, a mixture of lapis calaminaris and sweet oil, and many other like applications, have been recommended. Dr. Hughes Bennett uses a mixture of powdered starch with mercurial ointment. Dr. Stokes recommends a solution of gutta percha in chloroform.—See *Braithwaite*, XXVI, 374. Others advise a solution of India-rubber in chloroform; while M. Trousseau uses a preparation called *elastic collodion*, composed of 30 parts of collodion, $1\frac{1}{2}$ of Venice turpentine, and $\frac{1}{2}$ of castor oil.—*Braithwaite*, XXXII, 257. The Editor, when one of the physicians to the Cork Fever Hospital, had the advantage of seeing different local applications used by his colleagues, and a comparison of the results from them with his own cases, leads him to strongly recommend the use of mucilage of starch applied as described when treating of erysipelas.—(See p. 67). An experience of several years has convinced him that the patients so treated will rarely become

pock-pitted. For a full account of this plan, and cases in point, see the following papers by him: "On the External Use of Starch in Cases of Smallpox and other Skin Diseases of an Inflammatory Nature."—*Dub. Hosp. Gaz.*, 1856, p. 72. "Notes on the Treatment of Continued Fevers and other Acute Diseases."—*Dub. Quar. Jour.*, Feb., 1863 (Vol. 35). In bad cases of smallpox, and of the exanthemata, in which bed-sores or other troublesome sequelæ result, it is of importance for the patient to have a bed specially suited for these cases. A bed designed by Dr. Corrigan, and described in his Lectures on Fever (p. 85), has been long known to the profession. In the *Dublin Quart. Journal* for February, 1864, the Editor published "A Description of a Bed intended to be Used in Protracted Fever Cases." This bed, which adopts the essential principle of Dr. Corrigan's, has the advantage over his of free access to air and light underneath, is very inexpensive, and can be made in a few hours by any carpenter or amateur mechanic. Its dimensions are: Length, *six feet six inches*; breadth, *two feet six inches*; height from the ground, *one foot six inches*.

The annexed diagram shows it as it may be used for a case of bed-sores; the uppermost third forming an angle of about 135° with the other two-thirds. This, or any amount or variety of inclination, may be obtained by shortening or lengthening the leather straps, A A, and so working the hinges, B B. The action of the hinges, F F, is reversed, to enable the lowest and middle thirds to form any angle, in the opposite direction to B B, that may be desired to ease the lower extremities; in which latter case the patient would assume the posture usual with persons in the dressing-rooms of Turkish bath establishments. These hinges being under the frame cannot be shown in the drawing. The leather straps, A A, are attached at C C, and like those of girt-web, D D D D D, &c., are fastened at one end on brass buttons like the window straps of a railway carriage, while they are fixed at the other extremities. At E E E E are four holes for the insertion of the attaching portions of head and foot-boards, if such should be deemed desirable, while the bed

is in a horizontal position. It is not necessary that there should be any mattress, for the surface forms an even



plane; blankets folded from above and below, leaving a gap for the sore, as recommended by Dr. Corrigan, will answer every purpose. If, however, a mattress should be required, it ought to be made in several parts, each capable of being temporarily joined to the others, so that one part might be withdrawn while the others are kept in use. Any one or more of the girth-web straps may be loosened to admit of the use of the bed-pan, which can be readily introduced at any part of the bed; and, of course, the strap or straps immediately under the sore parts should be loosened, *while all the rest are kept perfectly tight*. In this last direction, as to the tightening and loosening of the straps, the entire principle of the bed is contained. It can be easily moved from one apartment to another, without causing any disturbance to the patient, who may remain on it throughout; while its capability of elevation at the head, combined with its portability, would give the patient most of the advantages of being out of bed without any of the risk incurred by rising prematurely.

Connected with, or analogous to, variola are varicella, or chicken-pock, and vaccinia, or cow-pock.

Varicella is by some supposed to be a modified small-

pox or varioloid. Its general features may be said to resemble those of variola in a mild and slight degree. Dr. Fox states that, generally speaking, it is distinguished from smallpox by—

1. Less severity of general symptoms; 2. The shortness of the course of the eruption; 3. The absence of secondary fever; 4. The characters of the eruption; often oval, non-umbilicated, areola and induration less, thin scabs, and absence of pitting; 5. Appearance often on the back first; 6. Eruption successive, and thus prolonged a good time.

Unless when *confluent*, this disease is free from danger; it is communicable by contagion, affects the system, as a rule, only once, and seldom requires any medicine beyond gentle saline aperients.

Dr. Hillier has constructed the following table to assist in the diagnosis of some of the eruptive diseases already noticed :—

MEASLES.	SCARLATINA.
Rash appears on fourth day : begins near roots of hair, in spots slightly elevated. Color—brownish-red. Crescentic arrangement, with normal skin between redness.	Rash on second day ; begins on neck and face. Color—rose-red or crimson. Punctiform almost uniform.
Slight branny desquamation succeeds. Accompanying symptoms: coryza and cough. Heat of skin, moderate.	Copious desquamation. Accompanying symptoms: sore throat, strawberry tongue, great heat of skin, rapid pulse.
VARIOLA.	VARIOLOID.
Rash on third day ; first on the forehead. Shotty papules going on to umbilicated vesicles, and then to pustules, with much inflammation around ; often confluent.	Rash on second or third day ; first on wrists. Shotty papules, some becoming vesicles only, others pustular, but pustules small, and not confluent.
Thick scabbing and scars left.	Scabs seldom leaving scars.
Accompanying symptoms: pains in back, vomiting, and fever ; secondary fever.	Symptoms as in variola, but milder at first ; no secondary fever.
VARICELLA.	
Rash on first or second day ; first on back. Papules, some not advancing, others vesicular, a few pustular without umbilication ; eruption irregular in progress.	
Usually no scars.	
Constitutional symptoms insignificant.	

Vaccinia, or cow-pock (from *Vacca*, a cow), is a disease communicated to the human hand from an eruption on the teats and udder of the cow. The eruption is seen about the seventh day after inoculation, and consists (as Dr. Fox concisely puts it) “of red, pointed, hard papulæ,

which go through the usual smallpox stages of vesiculation, pustulation, umbilication, and desiccation, leaving behind pitting of the surface."

Vaccination, as all the world knows, is inoculation of the human subject by scratching or puncturing into the skin the morbid matter taken either from the teats of the cow, or, secondarily, from the vaccinated subject.

If the operation has been successfully performed, the following appearances may be looked for:—

2d day.—Small, red, hard spots.

5th day.—Pearly circular vesicles.

8th day.—Matured vesicles, with depressed surface and raised edge, surrounded by an erythematous areola of the skin, which is painful, and accompanied with slight febrile disturbance.

11th day.—The areola having increased during the 9th and 10th days, the vesicles now burst, if not previously opened; the areola begins to fade, the vesicle becomes a brown scab, and falls off about *the 20th day*, leaving a cicatrix with pits proportioned in size and number to the cells in the vesicles. Dr. Fox's "rules" to be observed in performing vaccination are most clear and concise, and are here given:—

1.—Get lymph from a perfectly formed vesicle; and

2.—Obtain it on the eighth day, before the areola is formed; and

3.—From a healthy child.

4.—Vaccinate in several distinct places; the more vesicles produced by vaccination the greater is the protective power.

5.—Use scarification with a lancet as the method.

6.—Do not vaccinate "too many from the same arm."

7.—Do not use matter taken from the adult, or from one who has been vaccinated before.

8.—Two months is the most suitable age for operation.

9.—The desirability of re-vaccination depends upon the degree of exposure (probable), the existence of an epidemic, the number of cicatrices, and their degree of visibility and extent.

10.—Be very careful not to use the vaccine matter

which has been taken from any member of a family in which syphilis has occurred.

11.—Use lymph pretty recently taken.

As to the alleged diminished efficacy of vaccination, in the present day, 'see Mr. Thomas Massey Harding's papers on Smallpox and Vaccination, in the *Medical Times and Gazette*, for Sept., 1865.

Vaccinella is a name given to those secondary eruptions which, in various irregular vesicular forms, follow the operation of vaccination—they occur over the body generally. For a full history of cow-pock, see Mr. Ceeley's account in the tenth volume of the *Transactions of the Provincial Medical Association*, and Dr. Watson's account in his lectures, in which will also be found a history of the inoculation of smallpox, formerly practised universally in this country.

The maculæ of *typhus fever* and the rose rash of *typhoid* are eruptions of the skin, but are only secondary to the graver symptoms of these diseases in which they are not *invariably* present. For a full description and plates of them reference may be made to Murchison's *Treatise on Continued Fevers*, to Tweedie's *Lectures on Fever*; and they will also be found fully treated of in the works of two Dublin physicians—Dr. Corrigan, in his *Lectures on the Nature and Treatment of Fever*, and Dr. Lyons, in his *Treatise on Fever*.

CHAPTER III.

VESICULÆ (Vesicles).

THE term VESICULÆ, formerly employed to designate any cutaneous eruption in which *matter* was effused beneath the cuticle, was restricted by Willan to those forms in which the effusion is a transparent fluid, contained in minute, orbicular, epidermic elevations, corresponding to his definition of a vesicle; when these elevations were of larger size, the diseases in which they occurred were placed in a distinct class, denominated by him *Bullæ*; but with respect to their visible phenomena, as they differ only in magnitude, I shall include all in one class. The Order Vesiculæ, then, may be defined to be characterized by an eruption of vesicles or blebs, which consist in an elevation of the epidermis varying in size, sometimes minute (vesicles), sometimes of tolerable magnitude (bullæ or blebs), containing a transparent, serous fluid, which, with the progress of the disease, becomes opaque, and dries into thin scales or crusts. There are five genera contained in the Order: Eczema, Herpes, Pemphigus, Rupia, Scabies. Of these the first two are attended usually with acute symptoms; pemphigus and rupia with fever of a low type; and scabies with local inflammatory action, but very rarely with constitutional derangement. In all, the fluid contained in the vesicles becomes opaque and sero-purulent with the progress of the disease, and they are then often diagnosed with difficulty from pustular eruptions.

ECZEMA.

Eczema, ἐκζεμα, from ἐκζέω, effervesco, included by Moses under the Hebrew term *Seeth*, and rendered "a rising" in Leviticus xiii, 2; translated by the LXX *δυσή*
9*

a scar or mark. Dartre Vive of Sauvages; Dartre Squameuse Humide of Alibert.—See Plate III.

ECZEMA (*Scall* or *Humid Tetter*) is a most important and interesting disease of the skin, being of extremely frequent occurrence,¹ at times very difficult of diagnosis—particularly in its advanced stages—and *usually most rebellious to treatment*. It is characterized by the eruption of numerous minute transparent vesicles, closely set and irregularly aggregated on an uncircumscribed inflamed surface, and attended generally with burning pain and intense itching. It is highly inflammatory, but non-contagious. The vesicles, which are at first perfectly transparent, become opaque on the second or third day after their appearance—the contained fluid assuming a semi-purulent character—and either dry up with a fine furfuraceous desquamation, or bursting, become covered with thin, yellow crusts, from beneath which an acrid, watery exudation takes place. Eczema differs much in appearance, as it occurs on the parts of the cutaneous surface which are ordinarily covered or exposed, or on which hair grows, and therefore must be described more or less with reference to a regional system of classification. The forms of the disease, according to the course which they run, are naturally divided into two groups, the acute and chronic: and as regards external characteristics, two varieties are well marked:—

Eczema simplex.

“ rubrum.

But it is also requisite to consider it specially, as it may be seated on the face or on the scalp:—

Eczema faciei.

“ capitis.

Eczema simplex (Plate III, Fig. 1) is attended with scarcely any fever, slight nausea and headache occasionally preceding its eruption, which is accompanied by

¹ Mr. Erasmus Wilson states that Eczema occurs in the proportion of 30 cases out of every 100.—*Inquiry into Relative Frequency, Duration, and Causes of Diseases of the Skin* (1864), p. 4. Devergie's cases give an average of one-third—600 in 1,800.

some heat and tingling of the surface. It consists in the appearance of numerous minute shining vesicles, not exceeding in size the head of a small pin, which are closely aggregated, and irregularly distributed on apparently healthy skin of the natural color; but with a magnifying glass each vesicle may be seen to be surrounded by a narrow red areola; in forty-eight hours the fluid contained in them becomes opaque, and on the third or fourth day they dry up, and are followed by a fine mealy desquamation of the epidermis, and thus the disease may run its course in from four to six days. In most cases, however, a fresh crop of vesicles appears as soon as the first has matured, and by successive crops its duration may be prolonged for as many weeks; under such circumstances, thin yellowish crusts or scabs are formed, and a serous exudation continues to flow from the surface while the disease lasts, often in large quantity. The heat and itching are then also troublesome; and if the part be scratched or irritated, the eruption may become chronic, or may change into the second form. For a long time after the disappearance of the disease the epidermis continues to desquamate, but it leaves no stain on the skin, or other trace of its existence.

This form of eczema usually appears on the backs of the hands and arms, sometimes on the scalp, but rarely on the lower extremities, on the trunk, or on the face.

Eczema rubrum (Plate III, Fig. 2) is an acutely inflammatory disease, an attack of it being ushered in generally with sharp fever, and always with much local pain, heat, and swelling of the portions of the integuments about to be affected. Numerous pellucid, small vesicles are rapidly developed on a highly inflamed, uncircumscribed surface, of a bright red color, and tumefied, over which they are irregularly distributed, but crowded together in patches; the parts feel painfully tense, and cause a continued tingling rather than itching. The vesicles, becoming opaque, enlarge somewhat, look fuller, and, bursting, form yellowish crusts; in a few rare cases the disease terminates in from a fortnight to three weeks with the falling off of these crusts and subsequent epidermic desquamation. But in most instances, and invariably when the parts

have been torn by scratching or otherwise irritated, a copious discharge of an acrid, thin, serous fluid continues to flow from the inflamed surface, apparently without the formation of new vesicles; the inflammation spreads to the adjoining portions of the skin, often seemingly caused by this discharge flowing over them; bright red cracks and fissures form in the integuments, which are exco-riated, thickened, much swollen, and attended with intense pain and itching, and blood flows freely should they be scratched. The serous exudation is usually in very large quantity, so great as at times to require to be continually wiped away, that from even a limited surface wetting completely a large handkerchief in a few moments; when it is not so copious it dries quickly into fine lamellar scales, a constant desquamation of which takes place. The aspect of this form of the disease, *when fully developed*, is highly characteristic: the shining crimson or bright red surface, covered in parts with the ichorous discharge, and in parts with the thin film of desquamating epidermic secretion, the deeper-colored fissures and cracks, from which blood occasionally flows, and the tensely tumefied appearance of the whole. This cracked or fissured aspect of the disease, described as above in the former edition of this work, is looked on as a variety in itself by some writers. It is called "*Eczema fendillé*" by the French, and "*Eczema rimosum*" by Dr. McCall Anderson.—*Practical Treatise on Eczema* (London, 1863), p. 23. The Editor finds it to be a very common secondary condition among the mechanics who chiefly resort to the Dispensary for Skin Diseases in Bishop Street.

Eczema rubrum, when it presents the aggravated characters now described, seldom gets well in a shorter space of time than two or three months, and occasionally, becoming chronic, lasts for years. In some cases the local inflammation is still more acute, the discharge becomes sero-purulent or purulent, concreting into thick yellowish scabs, and scattered pustules form on the surface; it is then termed *eczema impetiginodes* (Plate III, Fig. 3), from the resemblance which it presents to impetigo. This variety of the eruption is generally met with in

infants and children, is attended with well-marked febrile symptoms and much local pain and itching, and lasts for from three to six weeks, or occasionally, becoming chronic, for as many months; its duration being kept up by the successive eruption of semi-purulent vesicles.

When any of the forms of eczema become chronic they are usually described as a distinct variety, under the name of *eczema chronicum* (Plate III, Fig. 4); the disease then loses its vesicular character, the integuments which are swollen, thickened, and elevated above the surrounding portion of the skin that may remain unaffected, assume a permanently dark crimson hue, with numerous deep fissures which discharge a bloody ichor, and, taking on an inflammatory action from the least constitutional excitement or local irritation, are painful to the touch, tense, and attended with an acrid watery discharge and extreme itching. The constitution also, after a time, becomes affected, the digestive organs being deranged, and general debility ensuing.

Eczema rubrum may be seated on any part of the body, but generally attacks a large extent of the cutaneous surface, spreading rapidly from the place where it first appears. It thus occurs on the face, the scalp, the trunk, the arms and hands, and the thighs, rarely extending to the legs or feet except in very extreme cases. It also not unfrequently is local, appearing merely on the scalp, the face, the fingers, the backs of the hands, the ears, around the nipples in females, or in a single patch on the lower extremities, or in the pudendal region, being in all these cases very obstinate to treatment, and apt to become chronic. Each of these local forms of the disease has been constituted by some dermatologists into a distinct variety—an unnecessary refinement, as, with the exception of the first two, they present no essential differences, whether as regards diagnosis or treatment.

The outbreak of *Eczema faciei* (Plate III, Fig. 5) is preceded in young persons by a sharp attack of fever, attended with burning heat and soreness of the part about to be affected, which lasts for two or three days: in adults these symptoms are very trifling. Numerous minute vesicles then appear, closely crowded together, on a highly

inflamed patch of the cuticular surface, characterized by acute burning pain and intense itching. These vesicles do not mature, but burst usually on the day or day but one after their first appearance, giving exit to an abundant irritating serous fluid, which dries into soft thin scales. In some few instances the disease does not proceed beyond this stage, the cuticle of the part affected gradually exfoliates, and recovery takes place; but more generally the inflammation of the surface goes on increasing, fresh crops of vesicles continuously appear, the discharge becomes more copious and of a more acrid character, exciting irritation of those portions of the neighboring healthy skin over which it may flow, and the itching and painful tingling are most intense, scarcely allowing the patient a moment's rest, night or day. The skin which is the seat of the eruption becomes swollen as the disease advances, the epidermis exfoliates with the soft scabs, or is torn off by scratching, and deep bright red cracks appear all over the surface, from which a sanious, often bloody, discharge exudes. The sufferings caused by eczema when it reaches this stage can scarcely be described; suffice it to say, that they totally incapacitate adults affected with the disease from following any trade or employment.

Whether eczema rubrum attacks young or old persons, when it assumes a chronic character, *it is the most intractable of the eruptions which appear on the face*. It not unfrequently lasts for years (in one case, regarding which I was lately consulted, it had been of upwards of twenty-five years' duration), and is rarely cured in less than several months' treatment.

The most usual part of the face on which it appears in infants and young children is the forehead, to which it ordinarily spreads from the scalp, and, unlike most of the other eruptive diseases, is much more obstinate there than on its primary situation. This seems to depend on the greater delicacy of the skin of the face permitting those cracks and fissures, to which the rebellious nature of the disease appears to be chiefly due, to form more easily. In adults it occurs with greater frequency on the nose and lips, but in many cases spreads also to the forehead and cheeks.

Eczema capitis (Plate III, Fig. 6) soon loses its vesicular character, and in its various stages presents so much diversity of appearance that its diagnosis is not always unattended with difficulty. The eruption is preceded by heat, tingling, and itching, which are rapidly followed by the appearance of minute vesicles, crowded together in irregular-shaped patches, or scattered over a large surface. The interspaces between the vesicles and the whole of the scalp on which they are seated are red and inflamed; in most cases the vesicles are so minute as to be scarcely recognizable, or at least are not seen by the physician until they have burst and given exit to a copious exudation of a serous fluid, by which the roots of the hair are accreted together. In the acute forms of the disease this serous exudation continues for a long time, and is a most troublesome symptom; but in the chronic forms—and some cases assume a chronic character almost from the first—it rapidly dries into furfuraceous scales, which are pushed forward by the hair as it grows.

The vesicles of *eczema capitis* usually appear first behind the ear, close to the edge of the hairy scalp, from whence the disease spreads rapidly, very generally attacking the ear itself; in some cases the entire of the scalp will be covered with the eruption in a week or ten days, but in others the disease spreads very slowly.

With the progress of the affection, the appearance of the diseased surface varies much; sometimes it is scarcely, if at all, elevated above the healthy parts, and the eruption is only to be recognized by the watery exudation which keeps the hairs in a constantly moist state. In other cases the scalp is raw or excoriated, and secretes a thin, whitish pus, which dries into grayish-brown scabs, presenting cracks or fissures, through which the inflamed surface is seen. In a third form of the disease the serous exudation dries rapidly into extremely thin membranaceous scales, which are readily removable by the slightest friction, but cause much itching. And a fourth variety is characterized by a repeated eruption of minute patches of vesicles—the patches rarely exceeding the size of a small bean—all over the scalp, which pass through the stages of *eczema* as witnessed on other parts of the

cutaneous surface, and disappear in seven or eight days, but to be rapidly succeeded by a fresh outbreak of the disease.

The hair in eczema, no matter how long the disease may have existed, remains unaltered. When in the acute forms, attended with much inflammation, ulceration of the scalp occurs, the hair, of course, falls off; but in the progress of cure it grows again in a perfectly healthy state, except that in individuals past the age of puberty the new growth of hair is often gray.

Eczema occurs at all ages, from the infant at the breast to the very aged; in new-born children it not uncommonly appears on the umbilical region—eczema *umbilicale*—evidently arising from the local inflammation attendant on the separation of the remains of the funis, or from a want of due attention to cleanliness.

The *causes* of the disease are often sufficiently apparent, but equally often it is not to be accounted for; thus, as regards the head and face, the eruption occurs on the scrofulous and non-scrofulous child, on the healthy and the delicate, on the ill-fed, ill-housed, deficiently-clothed children of the poor, and the highly-nurtured, well-housed, warmly-clad children of the rich; in short, frequently the only cause that can be plausibly assigned for its outbreak is that scarcely understood one, *constitutional*. The French would refer an attack of eczema, under most of these circumstances, to what they call the “Dartrous diathesis,” a phrase which is as highly convenient to our Gallican neighbors as the word *constitutional* is among ourselves. Mr. Erasmus Wilson thinks that the essence of the disease is “debility.”—*Inquiry into the Relative Frequency, the Duration, and Causes of Diseases of the Skin*, 1864. It certainly affects females more frequently than males, for the same reason that those of all ages, whose skin is fine and delicate, are more liable to the disease than those in whom the skin is coarse and hard; in many families, too, a peculiar predisposition to diseases of the skin exists, and this predisposition, which appears to be hereditary, is well marked, as regards the causation of eczema.

Exposure to the direct rays of the sun often produces the disease in summer, so commonly that Bateman made

a distinct variety of eczema when so caused, naming it *eczema solare*; a numerous class of causes, amongst which this must be included as one, is the action of local irritants, as of blisters, of Burgundy pitch plasters, of croton oil and turpentine liniments, &c.; thus, too, in washer-women, the eruption is produced by the irritation of the alkali of the soda or soap which they use, and in house-scourers and char-women, of the potash—in both cases the disease is termed *washer-women's itch*; in grocers and makers of confectionery, of the sugar, in them it is named *grocers' itch*; in bricklayers it is produced by the irritation of brick-dust, and is accordingly called *bricklayers' itch*; Hebra describes a variety (*E. marginatum*) as occurring on the inside of the thighs in the case of riders on horseback, shoemakers, and others; in glove and clothes-cleaners it is a very usual disease, arising from the irritation of the oil of turpentine or resin which they employ; and in the higher walks of life a not unfrequent cause of the eruption is the too frequent use of stimulating soaps and cosmetic washes to the face and hands, and also the habit of washing the face, when heated, in cold water, or of not drying it sufficiently after it has been washed. Sitting in close, heated rooms, engaged in any occupation in which the face is constantly kept stooped, as in that of writing, is also a common cause of *eczema faciei*. An eruption of eczema is of very frequent occurrence on the legs of old persons in whom the small superficial veins are in a varicose condition; and in them, if irritated, it is apt to degenerate into troublesome ulceration.

The constitutional irritation caused by the action of mercury on the system produces in some cases—now more rare than formerly, when the employment of the preparation of this metal was so much abused—a very grave form of eczema; it is usually termed *eczema mercuriale*, but was described as a distinct affection, under the name of *Hydrargyria*, by the late Mr. Alley of this city, in an original and highly valuable essay on the disease, published by him in the year 1810. In the majority of cases it seems to have occurred when only a very small quantity of a mercurial preparation had been

taken. In its milder forms it resembles the acute stage of eczema rubrum, arising from other causes; but it more frequently assumes a much more severe character when it is ushered in by fever, difficult respiration, dry cough, and tightness across the chest, with a general smarting and burning feel of the skin over the whole body. These symptoms are soon followed by an eruption of minute vesicles, which break and discharge a very fetid fluid. As the disease increases in severity the eruption extends over the face and the whole of the body, which become covered with incrustations; the fever assumes a typhoid type, the difficulty of breathing increases and is accompanied by bloody expectoration, spots of purpura appear, and death ensues, preceded by delirium or convulsions. On the first appearance of this eruption the use of mercury ought to be immediately relinquished, and the accompanying symptoms treated by the means appropriate for the individual case.

The *diagnosis* of eczema in its advanced stages, and in some of its local forms, is not unattended with difficulty. Eczema simplex may at its origin be mistaken for *herpes*; but the vesicles in the latter are larger, more distinct from each other, and occur in patches always well defined, and often of small extent. When it appears on the fingers the serious mistake of confounding it with *scabies* is not unfrequently made, and thus much mental annoyance may be caused not alone to individuals but to families, owing to the dread and anxiety with which that eruption is viewed by all; even at their commencement they are, however, readily to be distinguished, the vesicles in itch being solitary, large, and conical, and becoming rapidly purulent; the tingling, burning heat of eczema is also very different from the intense itching of scabies, and by careful examination the itch insect, the existence of which is an unfailing diagnostic sign, may be discovered in the latter. In fevers and other diseases, in which profuse sweating occurs, a vesicular eruption which, from the cause by which it is produced, is termed *sudamina*, appears not unfrequently on the cutaneous surface, and might be mistaken for eczema simplex; but in it the vesicles, though of a small size, are few in num-

ber, perfectly distinct, and separated from each other, and, drying up in a few days, disappear without any serous exudation or local irritation.

Eczema impetiginodes, as its name indicates, very closely resembles impetigo; in both there is a purulent discharge, but the crusts or scabs which form on the affected part are always of a greenish hue, and the discharge purulent in the latter, while they are yellowish or yellowish-brown, and the discharge sero-purulent in the former. The chronic forms of the disease are liable to be mistaken for chronic lichen, especially for lichen agrius when seated on the hands, a serous exudation being then usually present; but the latter eruption never loses its papular character, the portion of the integuments which is affected being raised unevenly, rough, and not marked by the cracks and fissures so characteristic of chronic eczema; and the serous exudation is small in quantity, is evidently caused by the local irritation to which the eruption gives rise, and only occurs occasionally. With psoriasis, too, chronic eczema may be confounded by the superficial observer, in consequence of the epidermic desquamation by which it is attended; but the formation of true scales never takes place in the latter, nor the copious serous exudation in the former. The diagnostic marks between intertrigo and eczema have been noticed when describing that eruption. *Eczema faciei* is distinguished from herpes, in addition to the difference in the character of the eruptions already mentioned, by the latter affecting the mouth or lips alone, while the former is not confined to any special locality.

Eczema capitis may be confounded with impetigo or herpes of the scalp; it is diagnosed from either by the copious serous exudation, which dries rapidly into yellowish, not greenish crusts, by the rapid and excessive formation of soft furfuraceous scales, and by the hair not being affected. For *porrigo capitis* it can scarcely be mistaken, but the characteristic differences between the two eruptions will be more easily understood by deferring the mention of them until describing that disease.

In point of fact the difficulty of diagnosis in eczema

depends very much on the complications commonly occurring in cases of it. In the Editor's experience complicated cases are more frequent than the typical ones, which are to be met with for the most part in books. This difficulty of diagnosis arises not only from the complications already referred to, but also from the general custom in this country of not consulting a physician until the early stage of the disease has passed away, when the medical attendant will in vain look for any trace of a vesicle. It is no uncommon thing to see a case of eczema which simultaneously presents the appearance of two or three different diseases, or stages of the one disease, in different parts of the body. The Editor has detailed at length an important instance of this kind in *The Dublin Quarterly Journal of Medical Science* for August, 1865 (p. 254). In this case, on admission to the Dispensary for Skin Diseases, the disease exhibited on the right arm a vesicular eruption with acrid watery exudation; on the left arm an impetiginous eruption with purulent discharge; and on the left cheek a circular erythematous blush. Further, in about a fortnight, the disease on the left arm became rimous (*E. rimosum*).

This part of the subject opens another matter to which reference here must be made—the modern difference of opinion as to the *elementary lesion* in eczema.

The Willanist theory, that eczema is essentially a vesicular disease, was accepted, as above laid down, by Dr. Neligan. Mr. Erasmus Wilson, the *facil princeps* of the English School, believes elementary lesions to be mutually convertible: "that an erythema, for example, may become a lichen by the development of pimples, or an impetigo by the production of pustules. In the same manner, the pimples of lichen having subsided, the lymph or ichor of eczema being dried up, and the pus of impetigo exfoliated in crusts, there may remain behind a chronic erythema to which another term, namely, *psoriasis*, has been applied. Therefore, in essential nature, erythema, lichen, eczema, impetigo, and psoriasis are simply modified manifestations of inflammation of the skin, corresponding with recognized stages of common inflammation."—*Diseases of the Skin*, fifth edition, p. 71.

Mention has been already made of the *Dartrous* diathesis of the French School. M. Hardy includes under that head pityriasis, lichen, eczema, and psoriasis, affections of different elementary lesions, and defines the chief features of this diathesis to be as follows: that it is non-contagious; often of hereditary transmission; of almost constant recurrence; is accompanied by an itching which has a tendency to spread from one part to another; is chronic; recovers without scars, though often accompanied with ulcerations.—*Leçons sur les Maladies de la Peau. Partie I, 2^{ième} Edition.* Paris: 1860, p. 19.

Some writers, and particularly Hardy and De Vergie, divide eczema into three stages: 1, inflammatory; 2, secretory; and 3, scaly. These divisions the Editor knows to be really useful and practical, and the recognition of them will furnish a solution to many difficulties in diagnosis.

Having given the opinions of Wilson of the English and of Hardy of the French School, it will be necessary to state concisely those of the modern German School, as represented by Hebra, of Vienna.

Hebra makes pityriasis, lichen, eczema, and impetigo all stages, the one of the other; and, with Hardy, he states that the elementary lesion of eczema is not exclusively vesicular, but may be an erythema, a papule, a vesicle, a pustule, or a fissure. A full exposition of this theory will be found in Dr. McCall Anderson's work on eczema. In this book Hebra's theory is advocated, and the received meaning of the term eczema is sought to be so extended as to upset *in toto* the time-honored theory of Wilan. The late Dr. A. B. Buchanan founded a classification of eczema on this theory.—See *Eclin. Med. Journ.*, Jan. 1863. Dr. McCall Anderson gives four features as characteristic of eczema: 1, infiltration; 2, exudation; 3, formation of crusts; and 4, itching. Hereon Dr. Tilbury Fox observes (*op. cit.*, p. 96): "these are assuredly not peculiar to eczema; herpes and ecthyma, for instance, possess them;" and he adds:—"In spite of all that has been said or written, it appears to me that eczema is essentially and entirely vesicular." In the true spirit of a scholarly and unprejudiced reviewer Dr. Fox sets

down at length the arguments for and against the distinct nature of eczema; and having well weighed the whole question, he says: "The real conclusion seems to be this, that eczema is distinguished from its supposed allies essentially by its being a secretory disease; that the secretion is peculiar in its character, best described as stiffening linen, and drying into light yellow crusts; that the outpouring of this secretion in the first instance is connected with the formation of vesicles; but that the latter may be rapidly produced, or imperfectly developed, or may quickly burst after their appearance; and hence, also, be overlooked. But we cannot refuse to admit that the tendency in all cases of eczema is the formation of vesicles and the production of a *peculiar* secretion. Eczema is of all diseases most prone to complication, *e. g.*, by lichen. Again, eczema may be modified by treatment; it becomes chronic, or puts on special aspects, *e. g.*, it may fissure; hence eczema is modified by three great causes: (*a*) arrest of development, so that the disease assumes the aspect of an erythema; (*b*) free secretion or fissuring; (*c*) by complications, *e. g.*, as by lichen." —*Op. cit.*, p. 99.

The Editor candidly confesses that he regards this question—as to the nature of the elementary lesion in eczema—as yet *sub judice*. He feels that much can be said on both sides, and that the clear arguments advanced by Dr. McCall Anderson on the one hand, and by Dr. Tilbury Fox on the other, cannot be lightly overlooked by practical men.

In eczema the *prognosis* varies as regards the duration of the disease with the different forms, but in very few instances can the affection be said to be dangerous to life; yet some do occur; these are cases of debilitated old persons in whom it becomes complicated with pemphigus; and whenever such a complication takes place the prognosis should be most grave. Eczema simplex, when submitted to treatment at an early stage of the eruption, very seldom becomes chronic, but it is very apt to return on exposure to any local cause, and especially when it has been originally produced by the direct action of irritant substances. Eczema rubrum is always an ob-

stinate and severe affection of the skin, and most rebellious to treatment, years sometimes elapsing before it can be subdued; in such cases the general health sympathizes more or less, from the continued annoyance caused by the local irritation, the individual affected being not unfrequently altogether incapacitated from mental or other occupation. When the disease affects the scalp or face, it is also one of the most obstinate of the eruptions which appear on these parts. The occurrence of a general attack of eczema in the course of some chronic constitutional affection, particularly of the nervous system, is often not incorrectly regarded as a favorable sign.

With reference to the precise anatomical *seat* of eczema dermatologists are not agreed: Cazenave adopts Biett's view, that it is an inflammatory affection of the sudoriparous glands, but it is evident that other structures of the derma are also equally engaged. "It seems to be in the Malpighian layer of the epidermis, not unfrequently close round the orifices of the hair follicles."—Hillier, *Handbook of Skin Diseases* (Lond., 1865), p. 121.

Treatment.—Eczema is essentially an inflammatory eruption, even in its most chronic stages, and this fact should always influence our choice of remedies, whether topical or constitutional, for its treatment. In eczema simplex occurring in adults, mild saline antiphlogistics with alkalies, as in the following form, are prescribed with advantage at its commencement:—

R. Sodæ et Potassæ Tartratis, . . .	unciam.
Solutionis Alkalinæ (Brandish), .	drachmas quatuor.
Aquæ destillatæ,	uncias novendecim.
	Misce.
Sumat uncias duas ter indies.	

For children, gentle mercurial purgatives are better adapted, combined with antimonials such as James's powder if the febrile symptoms are well marked. In the mild forms of the disease the best local treatment in the acute stage is the use of the general tepid bath, or of warm water sponging, the parts being thoroughly but gently dried afterwards. Dr. Goolden, physician to St. Thomas's Hospital, has recommended the use of what is popularly termed the "Turkish bath."—See *Braithwaite's*

Retrospect, Vol. XLIII, p. 371. When the local affection is more severe, the weak lead-wash—a drachm of the solution of subacetate of lead to twelve fluidounces of rose or elder-flower water—applied on old linen wet well with it, is an excellent application: if the eruption is seated on any part of the extremities, it is best and most efficiently applied by means of bandages evenly put on, and kept constantly moist with the wash. In some cases of eczema moisture appears to disagree singularly, always aggravating the local symptoms; under such circumstances an ointment containing four grains of the carbonate of lead or of the acetate of zinc, to an ounce of cold cream, may be used; and if there is much tingling or itching in the part, two minims of dilute hydrocyanic acid should be added to the latter, or six minims of chloroform to the former ointment. If simple eczema occurs, as is not unfrequently the case, in children of a scrofulous diathesis, it is very apt to become chronic; when it does so, local remedies seem to have little effect on the eruption, but it yields rapidly to the internal administration of cod-liver oil, and the daily use of the tepid fresh-water bath.

In the early stages of eczema rubrum general anti-phlogistic treatment, proportionately active according to the inflammatory character of the constitutional and local symptoms, is requisite; in persons of full habit of body bleeding from the arm even may be indicated,¹ and in most cases topical bleeding by leeches from the neighborhood of the affected parts is attended with much benefit; active saline cathartics should be administered and repeated at short intervals until the febrile symptoms are subdued. The local heat, swelling, and tingling are best alleviated by gelatine baths, and at night the application of poultices, prepared by first steeping the best white bread in boiling water, squeezing it out as dry as possible, and then moistening the pulp with the weak lead-wash above mentioned.

The Editor is in the habit of prescribing a decoction of bran for local application. One pound of bran is put into

¹ If the essence of the disease be *debility* it is obvious that this recommendation of Dr. Neligan cannot be coincided in.—Ed.

a quart of water, and boiled down to a pint. The residue of bran is also useful as a poultice.

When this form of eczema becomes chronic, it is usually most rebellious to treatment, and requires the employment of internal specific or alterative medicines to produce a change in the state of the constitution with which it is combined or on which it may depend, and this is requisite even though the eruption is of small extent and local. In many cases the preparations of iodine prove most efficacious, but sometimes it is requisite to combine them with arsenic, or to give that medicine alone; in delicate constitutions, or if debility be present, the iodide of potassium is the best form; it may be given in some tonic decoction, as follows:—

R. Potassii Iodidi,	grana octo.
Decocti Ulmi (cortices recentis),	uncias duodecim.
Infusi Dulcamaræ,	uncias quatuor.
	Misce.
Sumat uncias duas omni nocte horâ decubitûs,	

When thus given it is not liable to sicken the stomach; and in my experience small doses of iodine or its preparations act most efficaciously in the treatment of diseases of the skin. Dr. Neligan was of opinion that where the use of arsenic is indicated, either from the obstinacy of the affection or the failure of other remedies, five minims, very gradually increased to eight, of the liquor arsenicalis, or of the liquor arsenici chloridi (De Valangin's solution), may be added to each dose of the above mixture; but that whether iodine or arsenic be administered alone or in combination, their use must be continued for a long time, at least for two or three months, and that beneficial results are always most effectually derived from the system being brought very gradually under their influence. The Editor cannot coincide in Dr. Neligan's recommendation—to give gradually increasing doses of an arsenical preparation. His practice is to give three minims thrice daily of the liquor arsenicalis, or of the liquor sodæ arseniatis, at or after meals; to intermit its use on the supervention of arsenical symptoms; to administer a purgative at least once weekly, but to persevere steadily in the use of the arsenical preparation

except when contraindicated as above mentioned. He has found the joint exhibition of quinia with arsenic very useful in some cases; but as the mode of administering this drug, and the question of its cumulative property, cannot be hastily discussed, he must refer the reader to an able paper on the subject, in *The Dublin Quarterly Journal* for November, 1864, by Dr. Cummins, of Cork. The Editor has also published in the same Journal, during this year, several cases in point.—See “Clinical Records” in Nos. for February, May, and August, 1865. Numerous internal medicines, as well as local applications, have been recommended by different writers for the treatment of chronic eczema; of the former the most generally employed are the tincture of cantharides, antimonials, sulphur, especially in the form of the sulphurous mineral waters, mercurials, and various vegetable tonics; but my own experience leads me to rely on either or both of the powerful alteratives above recommended; even in the most chronic cases I have seen the sulphurous waters—so valuable in other diseases of the skin—prove injurious, and mercurials generally disagree except with children, in whom the green iodide of mercury combined with the hydrargyrum cum cretâ often acts as a most valuable alterative.

The itching and copious secretion attendant on chronic eczema demand the employment of local sedatives and astringents. The unguentum plumbi subacetatis, to every ounce of which two drachms of glycerine and eight minims of chloroform have been added, constitutes a most useful ointment, no matter on what part of the surface the eruption may be seated; or the carbonate of lead or acetate of zinc ointment already described may be substituted for it should there be much tendency to local inflammatory action. Tannic acid, in the proportion of from four to twelve grains to the ounce of cold cream, with or without the addition of chloroform, is also an excellent application. Some recommend highly stimulating compounds for the local treatment of chronic eczema, such as anthrakokali or fuligokali (forms of carburet of potassium, which, when introduced into the practice of medicine a few years since, were highly

vaunted for their remedial powers, but have now fallen into disuse), tar, pitch, sulphurous preparations, &c. By distilling tar with water, a mixture of impure oil of turpentine, a pyrogenous oil, and some pyrentine is procured; this liquid has been recently used and highly praised by some French dermatologists, under the name of *huile de cade*, as a local application, inunctions being made with it twice daily. By the term *huile de cade*, however, most of the French pharmacologists understand a tarry oil obtained by the dry distillation of the wood of the *juniperus oxycedrus*. This *huile de cade* is manufactured at Aix-la-Chapelle, and those who desire it should be certain that it is the proper article, and not one prepared from common tar. On the recommendation of Dr. McCall Anderson, at the Glasgow Dispensary for Skin Diseases, during the past year, the Editor adopted, at the dispensary in this city, a preparation of Hebra's, known as "Tinctura saponis vindis cum piec." This consists of equal parts of tar, soft soap, and methylated spirit. It should be applied twice daily, suffered to dry on the skin, and washed off with soft soap or petroleum soap. From experience he can highly commend its use; and in *The Dublin Quarterly Jour.* for this year he has given cases illustrative of it.—See "Clinical Records" in May number. Dr. McCall Anderson gives essentially the same thing to the "better classes," in this form: Soft soap, rectified spirit, oil of cade, of each one ounce; oil of lavender, one drachm and a half; mix.—See his work, p. 80. The Editor has also used with good effect the local application of tincture of iodine made with *methylated* spirit.—See cases in *Dublin Quarterly Journal*, 1865. Professor Malmsten, of Stockholm, uses cod-liver oil externally, along with alkaline baths twice weekly.—*Medical Times and Gazette*, 7th July, 1855, p. 8. No matter what local remedy is employed, it will be found of advantage to sponge the affected parts carefully with a *weak* alkaline wash—ten grains of the carbonate of soda to a pint of distilled water—each time previously to its fresh application. M. N. Guillot, of the Necker, recommends an ointment composed of thirty parts of lard, and of from two to four parts each of sub-

carbonate of soda, oil of cade, and tar.—See *Medical Times and Gazette*, 24th March, 1860, p. 229. Dr. Routh uses this formula: Oil of juniper, an ounce and a half; suet, half an ounce; lard, an ounce and a half; mix.—*Lancet*, 22d October, 1853, p. 397.¹

When eczema occurs on the face or hands, the treatment as above described for its different forms is equally applicable, but in either situation, in consequence of the exposure to atmospheric vicissitudes and to various local irritants, it is usually more obstinate, and when the disease is general over the body the face is, for the same reasons, the last part to get well. The use of soap in washing should be interdicted, the weak carbonate of soda lotion warmed to blood heat being substituted for it; and especial care should be taken not to expose the surface to the action of harsh winds, the sun, the heat of the fire, or any cause which might produce determination of blood to the affected parts.

In eczema capitis the hair should be cut close to the scalp with a sharp pair of scissors—not *shaved* off—and kept as short as possible while the disease lasts, and for a short time after it is apparently cured. The crusts and scabs should be removed by poulticing with linseed meal, and sponging with the weak carbonate of soda solution mixed with an equal quantity of new milk, the surface being carefully dried afterwards. When the scalp is thus cleaned, in the milder and less inflammatory forms of the eruption an alkaline ointment, containing twelve grains of the bicarbonate of soda to the ounce of cold cream, may be applied morning and evening, the surface having been previously sponged as above directed; but if there be any tendency to inflammatory action the carbonate of lead or the tannic acid ointment, and the subacetate of lead wash, prove more beneficial. The scalp should be kept cool, very lightly covered or exposed to the air when in the house. As regards constitutional treatment, in scrofulous habits of body either cod-liver oil or iodide of potassium, with tonics, should be admin-

¹ See also Dr. Moore's paper "On the Nature and Treatment of some of the more ordinary Diseases of the Skin."—*Dub. Hosp. Gaz.*, 1859, p. 117.

istered; but the best alterative for children who are not scrofulous is the green iodide of mercury, as before mentioned.

In all forms of eczema, when the origin of the disease can be traced to any local irritant, this of course should be carefully guarded against, both during the progress of treatment and when a cure is effected; in the case of persons engaged in trades, and others who cannot abandon the occupation by which the eruption was caused, the cutaneous surface should be protected as much as possible by the use of wash-leather gloves. The diet of persons affected with eczema should be regulated according to the constitutional circumstances, but in children much benefit will be derived from placing them on a strictly milk and farinaceous diet. In both adults and children the bowels require to be carefully attended to, the use of mild saline purgatives, if possible the natural mineral waters, of which probably the Pullna is the best, being employed with excellent effects.¹ In children the process of teething must be watched and the gums lanced when necessary; and the eruption on the scalp should not be dried up too suddenly if there exists a tendency to disease of the brain or of any other internal organ.

From the number and variety of the medical agents recommended for the treatment of eczema it will be readily seen how very tedious and intractable this disease frequently is. What will prove most useful in one case will not be of the slightest advantage in another, and the same drug will often disagree at one time with the person who takes it beneficially at another. On the other hand, steady and constant perseverance in the use of some one or more of the chief remedies already noted rarely fails to bring a success, which, however, must be earned by the joint patience of patient and physician.

¹ Dr. Fox (*op. cit.*, p. 109) advises the use of the sulphureous mineral waters of Luchon, d'Enghein, Barèges, and St. Gervais.

HERPES.

Herpes—Ἑρπης, from ἔρπω, *serpo*, I creep; Ignis sacer of Latin authors; Erysipelas Phlyctenodes of Cullen; Herpe-dartre of the French.—See Plate IV.

HERPES (*Tetter*).—This term, though very generally used in the nomenclature of cutaneous diseases by the older medical writers, had with them no special reference: it is now employed to designate an eruption of small globular vesicles clustered together, and often regularly grouped, on inflamed patches of the skin usually of small extent and distinctly separated. The eruption is preceded by heat, tingling, and some degree of swelling and redness in the parts on which it is about to appear, but there is no antecedent or accompanying fever unless, which is rarely the case, it is developed simultaneously over an extended surface, and even then the febrile symptoms are but slight. It is described by most English dermatologists as being *non-contagious*; but an accumulation of direct evidence has convinced me that one form of the eruption is propagated by contagion, *no matter on what part of the cutaneous surface it may be situated*. The vesicles, which on their first appearance are globular and transparent, on the second or third day become somewhat flattened, opaque, and semi-confluent; they then burst and give exit to a trifling serous discharge, which, concreting into a soft, thin, yellowish-brown crust, falls off and leaves a superficial ulceration that heals rapidly. The causes of herpes, when it affects the body generally, cannot be traced with certainty, but in some of its local varieties are often sufficiently manifest.

The forms of this eruption present great variety, and have been differently named with reference both to their external phenomena and the parts on which they may appear; this has led to numerous subdivisions of the disease in classifying it for the purposes of description, thereby tending to complicate the inquiry. I shall describe them all under the three following heads:—

Herpes phlyctenodes.

“ zoster.

“ circinatus.

Herpes phlyctenodes (Nirles), *Herpes miliaris* of various authors, Dartre phlyctenoïde of Alibert (Plate IV, Fig. 1), is occasionally, more particularly when it occurs in adults, attended with slight fever, foul tongue, loss of appetite, nausea, and thirst, but the pulse is rarely quickened; there is a deep-seated pain in the part on which the eruption is about to appear, and superficial heat and tingling. Small, irregularly-shaped patches of the skin become slightly swollen and red, and in about twenty-four hours afterwards an eruption of vesicles appears on them. The majority of these vesicles are of small size, but a few of them obtain the magnitude of a pea; they are distinct from each other, rounded, and contain a transparent serous fluid; they occur in groups, varying in size from one to three or four inches in length or breadth, but rarely exceeding that of the palm of the hand; usually, when of large extent, constituting but a single group, which, however, is often made up of three or more smaller, by the eruption spreading over the intermediate sound skin. On the second day after their appearance, the fluid in the vesicles becomes opaque or sero-purulent, and they burst on the third or fourth day; those that were closely aggregated together having previously become confluent, forming soft crusts or brown scabs, from beneath which a thin sero-purulent matter exudes in small quantity. These scabs, falling off on or about the tenth day, leave small superficial ulcers which heal in three or four days, so that the disease rarely lasts longer than a fortnight. But it is sometimes prolonged by the eruption of a distant patch of vesicles on the third or fourth day after the appearance of the first, and in their neighborhood; they unite with the former, and the entire thus cover a rather extended surface; requiring, however, the same time for maturation and healing, the duration extends to three or four days more. Should there be any attendant fever, it abates or disappears with the outbreak of the eruption, but the local symptoms increase until the vesicles burst, when some slight itching only remains.

The local pain, which is often severe previously to the appearance of the eruption, is usually much alleviated then, but sometimes returns with greater intensity after

the surface is healed, and presenting somewhat of a neuralgic character, lasts with great obstinacy frequently for months. Occasionally in old persons, or in bad constitutions, an herpetic eruption terminates in troublesome ulceration.

The phlyctenoid form of herpes may appear on any part of the body; its most usual seat is on the trunk, the neck, and the arms, rarely occurring on the lower extremities. It attacks some special portions of the integuments with great regularity, and its occurrence there requires to be separately described; these are the lips and the prepuce. Herpes *labialis* is a slight form of the disease, deserving notice merely in consequence of the local annoyance which is occasioned by its situation; the eruption, which is preceded by a certain degree of tumefaction, dryness of the skin, heat, tingling, and redness, appears at the angles of the mouth, or on the upper or lower lip, more usually on the latter,¹ being of small extent, rarely exceeding the size of a shilling. The vesicles, which are minute, closely aggregated, and covering the entire of the inflamed surface, are at first globular, transparent, and shining; within forty-eight hours the contained serum grows turbid, the vesicles become confluent, forming bullæ of the size of a pea, and on the fourth or fifth day soft brownish crusts appear on their surface, which fall off in two or three days more, leaving a slight degree of redness and swelling of the part, that lasts for about a week. Should the crusts, however, be torn off by scratching, or irritated from their situation at the commissures or on the vascular portion of the lips, the surface bleeds, and a hard, dark brown scab is formed, which is slow in separation. Sometimes the herpetic eruption on the lips extends completely round the mouth, when it is a troublesome and obstinate affection; but unless under these circumstances, it runs usually a rapid course, its duration seldom exceeding a week or ten days. A variety of herpes, similar in all respects to this, occasionally appears on the ears; it is then termed herpes *auricularis*.

¹ The Editor has seen it more frequently on the upper lip.

Herpes præputialis has been so named from its appearing on the prepuce, being situated either upon the external cuticular surface or on the mucous membrane. It was first described by Dr. Bateman, and is delineated by him in Plate LI of his well-known *Delineations of Cutaneous Diseases*. The eruption is preceded by heat and tingling in the part, and some degree of soreness; and when it occurs on the internal aspect of the prepuce there is also more or less tumefaction; the transparent orbicular vesicles soon appear in a small group, but distinct from each other, on a somewhat circular inflamed patch of the integument, rarely exceeding the size of a sixpence; when they occur on the external surface they mature quickly, becoming opaque, and forming brownish crusts, which fall off on the fifth or sixth day, leaving the part on which they had been seated slightly tender and red; but when the eruption is situated on the mucous membrane the vesicles are larger, become sero-purulent, and from the confluence of two or three attain the size of a split pea; the scabs which form are softer, and of a yellowish color, and, being easily rubbed off, leave a small ulcerated surface, which, from the swelling of the surrounding mucous membrane, occasionally presents a slightly excavated character, in consequence of which it is likely to be mistaken for a chancre. *Herpes præputialis* sometimes becomes chronic when the disease spreads, by the appearance of successive crops of the eruption, over the entire of the prepuce, especially affecting the part where the mucous membrane and the skin meet; there is much thickening from the effusion into the sub-mucous areolar tissue, caused by the repeated attacks of inflammation; the surface becomes hard, rugose, fissured in parts, and in parts covered with brownish crusts, from between and beneath which an unhealthy, fetid, sero-purulent discharge takes place, and as the glans penis cannot be uncovered, foul ulceration of it not unfrequently occurs to complicate the original disease. When the eruption is of this chronic character, it often lasts for months, and the general health becomes affected in consequence of the anxiety and distress of mind it occasions.

In females herpes phlyctenodes sometimes appears on the pudendal region, being situated at the vaginal orifice on both the skin and mucous membrane; its characters correspond precisely with those of the disease of the prepuce in males, but in consequence of the parts being more exposed to the irritation arising from local discharges and from the urine, it is generally more chronic and rebellious to treatment. By some writers it is made a distinct variety, and termed herpes *pudendalis*.

Herpes Zoster—Ζωστήρ of Greek authors—from Ζώνη, to gird; one of the species of Ignis sacer, described by Celsus (Lib. V, cap. 28); called, simply, *Zoster*, by Pliny (*Nat. Hist.*, Lib. XXVI, cap. 11), and *Zona*, or *Zona ignea*, by other Latin writers.—See Plate IV, Fig. 2.

This disease, vernacularly termed "the shingles" (probably from *cingulum*, a belt), has derived its specific name from the peculiar form which the eruption assumes, extending in the course of the anterior branch of the spinal nerves, and resembling, as it were, a girdle or sword-belt. The constitutional and local symptoms are more severe than in the variety last described, the former often amounting to a well-marked fever preceding the outbreak of the disease, attended with a distinct shivering fit and vomiting. Locally there are sharp stinging pains, burning heat, redness, and some tumefaction of the integuments in the part on which the vesicles are about to appear; these occur of tolerable magnitude, and closely grouped together in three or four distinct but neighboring patches, each surrounded by an inflammatory areola, which gradually spreads, new vesicles appearing on it, and the entire constitutes a crescentic or oblique demi-zone from half an inch to one or two inches in breadth, seated on one side of the neck or trunk, often extending from mesial line to mesial line, by which it seems to be distinctly bounded, very rarely passing its limits. The eruption runs the same course as in herpes phlyctenodes, but the vesicles become more confluent, thus often attaining the magnitude of bullæ, those which first appear being always the largest; and it is somewhat more chronic in all its stages, the scabs being often particularly slow in separating.

Most authorities are now agreed that this disease is due to a nervous origin. Von Bärensprung believes that it proceeds from an irritation of the spinal ganglia, and that the posterior roots are implicated.—See *Ranking's Abstract*, XLI, 123. Heller states that the urine is alkaline, and has chlorides, phosphates, and ammonia in excess, sulphates and uric acid in diminished quantity, together with the presence of fat and oxalate of lime.

The local pain which precedes the appearance of the eruption in herpes zoster is not unfrequently very severe and apparently deep-seated, seeming to shoot through the chest or abdomen if the disease is about to occur on the integuments of either of these regions. This pain, which to a great extent disappears when the vesicles are developed, usually returns with greater or less intensity, especially in adults or old people, when the crust falls off; sometimes lasting even for years, and causing great suffering. At times chronic ulceration succeeds this form of herpes in bad constitutions, and this may terminate even in gangrene, and thus prove fatal. Mr. Hutchinson, in his observations before the Hunterian Medical Society, on 25th February, 1863, has concluded that it rarely occurs twice in a lifetime.

The usual seat of herpes zoster is on the thorax or abdomen; it also appears occasionally on the neck; when the eruption commences over the scapula, or in the neighborhood of the hip, it may extend to the shoulder or thigh, including either in the semicircle which it forms, but it very rarely originates on the extremities. By Franck and Cazenave the disease is stated to appear more frequently on the right side of the body, but Dr. Neligan's experience agrees with that of Reil and Wilson, that it is situated on the left in the greater number of cases. Dr. Tilbury Fox (*op. cit.*, p. 110) says, that "of 178 cases collected by Bärensprung, in 101 the herpes was on the right side, in 77 on the left. Mr. Hutchinson's observations are confirmatory." It is so extremely rare for the demi-zone of herpes to pass the median line, that among the ancients, particularly among the Greeks and Arabians, it was popularly believed, and the fact is mentioned by Pliny, that if the eruption surrounded the

body it should prove necessarily fatal;' yet cases are recorded by modern writers—Franck and others—in which such took place by the simultaneous development of the eruption on both sides and their extremities meeting, yet the patients recovered. In Lorry's quarto volume, *De Morbis Cutaneis*, published at Paris, in 1777, the author says (p. 405) he never saw it to be fatal (*eam nunquam lethalem vidi*), save in phthisical persons.

Herpes circinatus.—From *circino*, I go round (and that from *Κίρκινος*, a pair of compasses), circular tetter, *Anglicè* RINGWORM—*Formica ambulatoria* of Celsus, Anneau herpétique of the French.—Plate IV, Fig. 3.

Herpes circinatus (*Ringworm*), like the last described variety, derives its name from the shape of the groups in which the eruption appears, namely, distinct rings or circles, inclosing healthy skin in the centre. Slight pricking sensation or tingling accompanies the outbreak of the disease, but it is not attended with any constitutional symptoms. At first one or more small, red, circular patches, from half an inch to an inch in diameter, appear apart from each other on some portion of the integuments, on the outer border of which numerous minute, globular, transparent vesicles are developed on the second or third day; the redness then fades from the centre of each circle, which remains unaffected afterwards during the progress of the disease, but the ring of vesicles has an inflammatory border both external and internal. The vesicles, which are closely aggregated, become more or less confluent within forty-eight hours after their appearance, assume a pearly aspect, and then bursting, discharge a small quantity of a serous fluid, which dries into thin brownish crusts that fall off on the eighth or ninth day, to be succeeded by a fine epidermic desquamation that lasts for some time. The disease, however, rarely terminates thus, but is prolonged by the repeated eruption of fresh crops of vesicles on the outer inflammatory border, each set running an independent course, but one similar to the first; spreading in this manner from the circumference, the rings at times attain the size

¹ "Zoster appellatur, ut enecat, si cinxerit."—*Nat. Hist.*, *supra*. cit.

of the palm of the hand, which they rarely exceed. The circles may be few or many in number, rarely, however, more than four or five, and when of larger size there is usually but one; they may appear simultaneously on the surface or in succession: in the latter case the disease often becomes chronic, lasting for months.

Occasionally it occurs that the vesicles, instead of bursting and forming crusts, dry up, and are succeeded by a secretion of fine, soft scales, which continue to be exfoliated, not alone from the circumference, but from the centre of the circles. This form has been specially described by Cazenave, who denominates it *herpes squamosus* (Plate IV, Fig. 5); it is always chronic, and very obstinate to treatment.

Herpes circinatus occurs with greatest frequency on the face, neck, and scalp, being, however, occasionally situated on the chest, the shoulders, the arms, and the hands. When it appears on the face its most usual situations are the cheeks and the forehead; as the circles spread from their circumference they often extend from the former to the nose, but do not pass the mesial line, and from the latter into the scalp. In its milder forms ringworm disappears in eight or ten days, but its duration is more usually prolonged for three or four weeks, either by the spreading of the circles or by the successive development of fresh patches of the eruption; occasionally, as above remarked, it becomes chronic, and lasts for months, producing annoyance more from the unsightliness of its appearance, when it is situated on any of the exposed regions of the skin, than from any local uneasiness.

This form of herpes, otherwise known and described as *Porrigo scutulata*, *Tinea tonsurans*, *Tinea capitis*, and *Trichosis capitis*, when it occurs on the scalp, requires to be specially described, as it constitutes almost a distinct variety, which might be termed *herpes capitis*; it resembles in many of its characteristics the *herpes squamosus* of Cazenave; but that distinguished dermatologist, in consequence of the effect its presence exerts on the hair, proposes to term it *herpes tonsurans*. Its occurrence on the scalp at all is denied by many of the celebrated Eng

lish writers on diseases of the skin, who regard the eruption, about to be described, as a species of porrigo;¹ but prolonged clinical observation, independent of their corroboration by so deservedly high an authority as M. Cazenave, has tended but to convince me of the correctness of the views I propounded some years since.²

Herpes capitis (Plate IV, Fig. 6) usually attacks children from the age of 3 to 12. It is very rare in early infancy, and I have never met with it after the age of puberty, except in one instance, in which it had commenced at the age of 13, and had lasted for more than five years before I saw the case. It is very rarely witnessed in its first stage—that of vesicle—as it then produces but little annoyance, and advice is, consequently, not sought for until it becomes more developed. When seen, however, at its commencement, it presents the appearance of a small ring of minute vesicles, not more than an eighth of an inch in diameter, without any redness or other mark of inflammation beyond a slight tingling—not itching. These vesicles are attended with scarcely any discharge, soon drying up and desquamating; but as they dry up in the centre they spread from the circumference, and the diseased spots, in the course of a few days, attain the size of a shilling. When we examine them in this stage, the centre, the part where the eruption first appeared, is thickened, elevated above the surface of the surrounding scalp, and covered with fine scales, which are renewed rapidly on being removed. As the disease proceeds, the patches extend from their periphery, still retaining a perfectly circular shape, and, finally, after some weeks, attain the size of a crown-piece, which they rarely exceed, no matter how chronic the case may have been. Having attained this size, and ceased to spread, the entire of the diseased surface is thickened, elevated, and covered with fine, soft scales, which the

¹ It is called *Porrigo scutulata* by Bateman, and after him by Thomson, Burgess, and others. It is called *Trichosis tonsurans* by Wilson, and *Tinea tonsurans* by Fox, and most of the moderns, who regard it as a parasitic affection. See also Dr. Moore's Papers in *Dub. Hosp. Gaz.*, 1859, pp. 35 and 117.

² *Dublin Quarterly Journal of Medical Science*, N. S., Vol. vi. p. 33.

least touch removes: this, the advanced stage of the disease, is usually attended with much itching. Sometimes but one patch of herpes is found on the scalp, but more generally there are three, four, or more circles, distinct, and at some distance from each other.

As the disease advances, the hair assumes a very peculiar appearance, almost pathognomonic of this form of eruption of the scalp. In the early stage each hair appears to be slightly bent on itself, and turned against the grain, obstinately refusing to lie smooth; the roots are also somewhat matted together by the scaly crusts of the eruption. After some time it presents a diseased appearance, being twisted, broken, of a whitish color, and readily falling out; so that bald patches begin to appear, over which are scattered small bundles of the altered hair, which has been described, not inaptly, as resembling tow. This condition of the hair has induced some writers to describe the affection as a disease not of the scalp, but of the hair itself.

The eruption does not always present the exact characters now described. In the early stage—when, however, it is rarely witnessed by the medical practitioner—its appearance always agrees with the description given, except that in some cases there is more inflammation than in others; but in the advanced stages it varies much, both as regards the amount of desquamation and the appearance of the elevated patches: it is this fact which has led to so much confusion in the diagnosis and nomenclature of the disease. Yet in the most chronic or complicated cases, the circular form of the eruption, and the peculiar condition of the hair, render its diagnosis easy to even the tolerably experienced eye.

Bateman included this disease—by him termed *porrigo scutulata*—among the pustulæ; it has also been considered tuberculous, vesicular—as in this chapter—and parasitic.

Mr. Wilson believes it to be a disease of nutritive debility, and he calls the morbid result “granular or phytiform degeneration.” The advocates of the parasitic theory believe the “phytiform” tissue of Mr. Wilson to be a vegetable fungus, which in the present case is called

trichophyton tonsurans (Malmsten). It is admitted, however, by most modern authorities that herpes circinatus, or ringworm of the body, is a modification of herpes (or tinea) tonsurans, because of the vesicles or parasites, or both, to be met with in each variety. Both Mr. Wilson, and his opponents, the parasitic theorists, seem to regard it as rather an affection of the hair follicles than of the skin.—See Wilson, Fox, Hillier, &c.

Herpes capitis does not cause baldness; the altered hair falls off the diseased patches, which, when the scales disappear in the progress of cure, are thus left in a bald state; but the hair eventually grows on them again, thereby constituting an essential difference between this affection and alopecia. The disease, unless when seen and properly treated in its early stages, soon becomes chronic and obstinate, and loses its inflammatory character. No constitutional symptoms either precede or accompany herpes of the scalp.

In some very rare cases the eruption in herpes circinatus assumes a singular arrangement, which, in the opinion of some dermatologists, entitles it to be considered as a distinct variety, receiving the appellation of herpes *iris*, or *rainbow ringworm* (Plate IV, Fig. 4). A small, round, inflammatory patch appears on some part of the cutaneous surface, and around it, but separated by a narrow band of healthy integument of the natural color, is a red slightly elevated circle, which in its turn is again surrounded by two or three other similar rings of inflamed skin; on the centre a few minute herpetic vesicles are developed in about twenty-four hours after its appearance, as also on each of the rings, but they are more numerous and more closely aggregated on them. The rings, which are usually four in number, differ in color, the inner one being of a darker red than the central patch, that next to it of a slighter shade, the third darker even than the first, and the outer ring paler than the second, being of a yellowish-red hue, fading at its outer border into the color of the surrounding skin.

The vesicles run the same course as in the milder form of herpes phlyctenodes, the crusts, which are small and thin, falling off on the eighth or ninth day, to be

followed by slight furfuraceous desquamation, which lasts for a few days longer. Herpes iris seldom occurs except in very young children and in females; it usually appears on the backs of the fingers or of the hands, on the temples, and on the prominent parts of the joints, being sometimes associated with other forms of the eruption. It may occur singly, or several patches may appear simultaneously on different parts of the body; the only local symptoms are some trifling heat and itching, and it has no tendency to become chronic.

Causes.—Herpes is a disease almost entirely confined to young persons and to those in the prime of life, very rarely appearing in the old; among adults it affects females more commonly than males, but in children sex seems to have no influence in the frequency of its occurrence, those of a sanguine and lymphatic temperament, and in whom the skin is fine and soft, being most liable to it. Of the exciting causes of herpes phlyctenodes but little is known; it seems to be occasionally developed under the influence of strong mental emotions, and it is often connected with deranged conditions of the digestive and biliary organs. The season of the year, too, appears to have some influence on its occurrence, for it is most frequently met with in the spring and autumn. The connection of herpes labialis with febrile states of the system is usually very evident, and especially with those which affect the respiratory organs: thus it is an almost invariable accompaniment of catarrh, influenza, bronchitis, and pneumonia, in all of which its occurrence is a favorable symptom, whence has arisen the popular expression that the cold goes off in this way. It is also occasioned very frequently in travelling, by the direct effect of a harsh cold wind on the lips, or of the sun's rays; the action of local irritants, too, may produce herpes here, as is often witnessed in its being caused on the upper lip by the acrid secretions from the nostrils in coryza; this discharge, however, more frequently produces an eruption of eczema.

Herpes *præputialis* occurs only in adults, and most frequently in those in whom the skin of the prepuce is very sensitive; it is often caused there by the friction of

the clothes, and when it appears on the mucous membrane, or on the glans penis, where I have occasionally seen it, by the irritation of the natural sebaceous secretion of the part, allowed to accumulate from want of attention to cleanliness. The connection between the occurrence of herpes on the prepuce and stricture of the urethra is very generally admitted, but many observers believe it to be only an accidental coincidence; others, with whom I agree, consider the existence of stricture to be a cause of this eruption, and the manner in which it acts may, I think, be easily explained. In persons affected with stricture, the last drops of urine are retained for some time in the urethra, the shirt is thus constantly wet, and the prepuce is irritated by the acrid moisture to which it is thereby so constantly exposed; hence also, in these cases, the eruption is usually seated on the verge of this fold of integument. In females herpes of the pudendum may occur at any age; it is invariably caused by local irritation.

Herpes zoster appears in adults more frequently than any of the other varieties, occurring also occasionally in old persons, in whom it sometimes becomes chronic, and terminates in troublesome ulceration; it seems to be generally occasioned by cold, acting on individuals suffering from hepatic derangements. In the summer and autumn of some years it would appear to be epidemic among children, and in them it is very frequently produced by sudden suppression of the perspiration.

Herpes circinatus is a disease of youth, being very rare amongst adults, and occurs with equal frequency in both sexes; it is very common in schools, or wherever many children are congregated together, amongst whom it spreads rapidly. The popular idea that ringworm is contagious is opposed by most English dermatologists on the grounds that no other form of herpes is so, and that the disease cannot be produced by inoculation. Now, neither of these reasons is sufficient to counteract, in my mind, the amount of direct evidence which an experience of some years in the treatment of diseases of the skin has afforded me of the propagation of this form of herpes by contagion, no matter on what part of the body

it may be situated. I have elsewhere¹ published cases illustrative of the development of the eruption on the hands of adults engaged in the application of local remedies to the scalp of children who were affected with it, and to these I could now add several others; and I have seen too many instances of its direct communication from child to child of *different* families, when the argument of similarity of constitution and of dietetic arrangements could not avail, to have any doubt on the matter; but it must be remembered that, like all other contagious diseases, some families and some children are more prone to its attacks than others. My own opinion, too, is confirmed by that of M. Cazenave, who, in his *Leçons sur les Maladies de la Peau*, and in his more recently published *Traité des Maladies du Cuir Chevelu*,² adduces several cases from his own practice which exhibit in a marked degree the contagious nature of herpes circinatus.

Diagnosis.—The characters of the eruption in herpes are so well defined that, unless when it occurs on the scalp, it can scarcely be confounded with any other cutaneous disease. It differs from eczema in the vesicles being larger, more globular, and distributed in patches; its eruption is unattended with constitutional symptoms, and in its advanced stages it is not accompanied by the copious serous exudation of that disease. When the vesicles are very confluent it may be mistaken for pemphigus, but in that affection the eruption consists of bullæ, which do not in any of their stages present the pearly aspect of herpes, and are succeeded by hard, dark-brown crusts; the bullæ of pemphigus, moreover, are usually solitary and scattered over the cutaneous surface, not distributed in groups. Herpes labialis is diagnosed by the characteristic vesicles, and by their local situation. As already remarked, the serious error may be committed of confounding herpes præputialis with chancre: if the eruption is seen on its first appearance it is readily diagnosed by its vesicular character, but when the scab is formed, or

¹ *Dublin Quarterly Journal of Medical Science*, New Series, Vol. viii, p. 164, Note.

² Paris, 1850, p. 197. See also *Annales des Maladies de la Peau et de la Syphilis*, Tom. i, p. 37, et seq.

ulceration caused by irritation, the diagnosis is often not unattended with difficulty. The ulceration in herpes, however, is always superficial, never deep, and presents a smooth surface without raised edges and not coated with a white, filmy membrane, appearances peculiar to chancre; in very doubtful cases the question may with certainty be decided by inoculating the integuments of the thigh of the patient with some of the matter from the diseased surface. The same remarks, as regards diagnosis, apply equally to herpes of the pudendum in females. Erythema circinatum, or lichen circumscriptus, in their advanced stages present some resemblance to herpes circinatus, but neither of these are vesicular during any period of their presence on the skin, nor do they spread from their circumference in the manner that disease does; they are, too, attended, with more thickening and elevation of the integuments on which they are situated. Herpes capitis, which corresponds with the herpes tonsurans of Cazenave, is, as I have already remarked, described by many English writers as a variety of porrigo, the yellow, cup-shaped, favus crusts so characteristic of which it, however, never presents. It is diagnosed from the other eruptive diseases of the scalp by its occurring in distinct circular patches, the slight serous discharge from which dries into fine soft scales, that are readily detached by the slightest touch, but are again very quickly renewed, and especially by the peculiar change, before described, which it produces on the hair.

The *prognosis* in any form of herpes is favorable, as the eruption may be said almost never to endanger life, and is but very rarely productive of any injury to the general health; it is also not so liable as many other eruptions to become chronic, unless when it occurs on the scalp. The local neuralgic pain, which not unfrequently is consequent on herpes phlyctenodes and herpes zoster, is at times both severe and obstinate, often lasting for many months.

Treatment.—The phlyctenoid form of the disease very rarely requires any active constitutional remedies; in a few cases, when it occurs in young persons of a full habit of body, bleeding from the arm, or the application

of leeches in the neighborhood of the eruption, is attended with benefit, but neither should be had recourse to until the eruption is fully developed;¹ saline purgatives—preceded, if there is any biliary derangement, by a mild mercurial, five grains of blue pill, or two of calomel combined with a grain of extract of hyoscyamus—will, however, in nearly all cases, sufficiently meet the constitutional symptoms. In weakly individuals, tonics with antacids—as bark with the carbonate of ammonia—are indicated. With reference to local treatment, all that is requisite during the first two or three days after the formation of the vesicles is to protect them from being irritated by rubbing or scratching; unless there is much tingling and pain of the part, which will be relieved by smearing them over with a cerate consisting of two grains of acetate of zinc, an ounce of cold cream, and four minims of chloroform. Should there be any tendency to a copious discharge, finely powdered lapis calaminaris or starch will be dusted over the surface with benefit. As soon as the brown scabs form, a spirituous lotion, such as the following, should be substituted for the ointment:—

R. Olei Limonum, minima sex.
 Olei Corticis Aurantii, semi drachmam.
 Spiritus Vini rectificati, uncias quatuor.
 Aquæ Camphoræ, uncias octo. Misce.

The local pain consequent on this form of herpes or on herpes zoster is, as far as my experience enables me to come to a conclusion, but little relieved by external applications; those usually ordered for it are narcotics and sedatives, such as preparations of opium, of aconite, of belladonna, of arnica, &c. Regarding it as being chiefly neuralgic, I have prescribed with much benefit a combination of bark with hemlock, as thus:—

R. Tincturæ Cinchonæ compositæ, . . drachmas duas.
 Succo Conii, drachmas sex.
 Infusi Cinchonæ Flavæ, uncias septem. Misce.
 Sumat cochleare magnum quadrate indies.

¹ The Editor cannot concur in the propriety of bleeding from the arm.

In herpes *labialis*, if a strong spirituous lotion—I have found none answer so well as *Eau de Cologne*—be constantly applied to the part on which it is about to appear, as indicated by dryness, heat, swelling, and tingling, before the vesicles are formed, the further progress of the eruption may in most cases be arrested.

The only local application requisite, where the disease is fully developed, is some mild oleaginous ointment, such as the cucumber cerate; should it, however, become chronic, an ointment composed of ten grains of calomel to an ounce of simple cerate will be found useful. Persons who have once had an attack of herpes præputialis are fully aware of the premonitory local symptoms by which it is ushered in; the development of the eruption may then be stayed by the continued employment of cold water, the colder the better, which can be applied by plunging the penis several times in the day into ice-cold water, and retaining it there for a minute or two; when the vesicles are formed, no caustics or irritants should be employed, as their use is apt to be followed by troublesome ulceration; the best local application is the black wash, or Turner's cerate if there is much discharge when the vesicles have burst.

The same treatment is adapted for herpes zoster as for the phlyctenoid form of the disease. M. Cazenave, with the view of preventing the premature rupture of the vesicles, recommends that the surface should be smeared with oil, and then dusted with starch. The *ectrotic* plan of treatment, that is to say, opening each of the vesicles with a needle, and introducing into them a finely pointed pencil of nitrate of silver, has been recommended in both these varieties of the eruption. If they are situated on an unexposed part of the body, and not in any way connected with visceral derangements, it may be had recourse to, but it should be remembered that an *indelible mark sometimes follows the application of caustic to herpes*.

Most cases of ringworm require no treatment in the commencement except the use of mild mercurial purgatives, and protection of the eruption from local irritation; if, however, there is much heat or tingling in the part, poultices prepared with bread and the weak lead-wash

(see page 116) are productive of much benefit; when the scales have formed, the ointment of cold cream and acetate of zinc (see page 55) will be found an excellent application. If the disease become chronic, constitutional treatment is generally required for its removal, and preparations of iodine, with or without tonics, according to individual circumstances, are usually the most efficacious; as regards local applications, astringent ointments and alkaline lotions prove in most cases successful; thus an ointment consisting of four grains of the dried sulphate of iron, an ounce of white wax ointment, and a drachm of glycerine, should be smeared over the eruption three times a day, it having been previously sponged well each time with a lotion containing ten grains of the carbonate of potash in twelve fluidounces of rose-water; or, in very chronic cases, a dilute citrine ointment, containing from one to two drachms of *brown* citrine ointment (*unguentum hydrargyri nitratis*) to the ounce of prepared lead, may be substituted for that of the sulphate of iron. When herpes circinatus is inclined to spread rapidly, the progress of the eruption may be sometimes stayed by the application of strips of blistering plaster around the outer border of the rings, at a short distance from the inflamed surface; their effect seems to depend on a new action being excited in the part. The application of vesicating collodion will in like manner prove useful. In herpes of the scalp the same local applications will be requisite as when it occurs on other parts of the body, but the hair should be kept cut close with a pair of scissors during the entire progress of the treatment, and for at least three or four weeks afterwards; nor is it sufficient to cut the hair on the diseased parts solely, but it must be removed from the entire scalp, as otherwise the eruption is apt to appear in other patches on it. In herpes capitis in children, the green iodide of mercury, prescribed as recommended for eczema of the scalp, has proved in my experience the best alterative remedy. M. Bazin recommends an ointment of equal parts of lime and carbonate of soda to 30 of such parts of lard; and if the hairs are removed, an application to the hair follicles of one of the following forms:—

Solution of corrosive sublimate (1 part to 250 of water):

Ointment of acetate of copper (1 to 500 of lard):

Solution of pernitrate of mercury (1 to 30 or 40 of water):

Sulphate of copper one part, alum 3 parts, lard 20 or 30 parts:

Chlorine, or sulphurous acid.

Brit. and For. Med. Chir. Rev., Oct., 1853, p. 416.

The removal of the individual hairs—epilation—above referred to, is a favorite plan with the supporters of the parasite theory. Dr. Graves recommended the local use of iodine and the subsequent dressing of the parts with spermaceti ointment.—*Dub. Jour. Med. Sci.*, Nov., 1840. Mr. Wilson recommends constant ablutions with juniper tar soap, and the Editor thinks very highly of Hebra's *tinctura saponis viridis cum pice*, referred to in Chapter II.—See ECZEMA. Milk diet, as an important aid to treatment, should be enforced in this variety of the eruption.

Herpes iris is to be treated on the same principles as the milder forms of herpes circinatus.

PEMPHIGUS.

Pemphigus, from Πέμφιξ, bulla, phlyctæna.—See PATE V.

PEMPHIGUS (*Water-blebs*).—Willan described three forms of diseases of the skin which were characterized by the elevation of the epidermis into bullæ, namely, erysipelas, pemphigus, and pompholyx; that the first of these was incorrectly classed by him with the others is now admitted by all dermatologists for the reasons given when describing erysipelas; and the distinction he made between pemphigus and pompholyx—that the one is attended with constitutional fever and local inflammation, and the other is not—does not sufficiently separate them to constitute distinct diseases; the latter term therefore is now very generally abandoned, and when used is considered as being synonymous with the

former.¹ Pemphigus may be defined to consist in the development of oval or rounded elevations of the epidermis containing a transparent serous fluid, which vary in size from that of a pea to that of a large nut (*bullæ*)—at times they attain the size of an egg, each being surrounded by an inflamed areola. The contained fluid rapidly becomes opaque, and of a yellowish color; the epidermic covering, which is extremely thin, then bursts spontaneously, or is easily torn, and the eruption results in the formation of fine foliaceous crusts, or superficial excoriations, from which a slight serous discharge flows. The bullæ come out generally singly or in crops of from two to five or six, each crop disappearing in a few days with some trifling epidermic desquamation, but the duration of the disease is often indefinitely prolonged by successive eruptions. In a few cases all the bullæ appear simultaneously, when it runs its course in about a week. By some writers pemphigus has from this circumstance been classified into Pemphigus *simultaneus* and Pemphigus *successivus*; others arrange it in groups according to the number of the bullæ, and others again with reference to the age of the person on whom the eruption appears. The division, I think, least open to objection, and most convenient for the purposes of description, is into acute and chronic:—

Pemphigus acutus.
 “ chronicus.

*Acute pemphigus*² (Plate V, Fig. 1) is ushered in with well-marked febrile symptoms, being preceded by shivering, heat of skin, general *malaise*, and loss of appetite; as well remarked by Dr. Corrigan, there are sometimes two or more shivering fits so distinct that the attack at first sight appears to be intermittent fever.³ The feverish

¹ Dr. Thomson adopted the term Pompholyx in preference to Pemphigus, because *πέμφιξ* literally means an air bubble, while *πομφόλυξ* means a bubble filled with aqueous fluid. See his work, edited by Dr. Parkes (1850), p. 168; and also Lorry, *De Morbis Cutaneis*, p. 234.

² Dr. Tilbury Fox notes the clear description of acute pemphigus written more than half a century ago by Gilibert, in his *Monographie du Pemphigus*, &c. Paris, 1813.

³ *Cyclopædia of Practical Medicine*, Vol. iii, p. 263.

symptoms are succeeded on the second or third day by the appearance of few or many bright red spots, scattered generally over the thighs and lower part of the abdomen, which are attended with heat and itching; these spots rapidly enlarge, and a minute, transparent vesicle is developed in their centre, which in a few hours extends so as nearly to cover the previously inflamed patch of integument, a border being left which forms an areola to each. The bullæ thus constituted are round or oval, somewhat flattened at the summit; of a shining brilliancy, and, being irregularly distributed, resemble the effect which would be produced if boiling water was dashed on the skin; on the day after their appearance the contained fluid assumes a yellowish opaque aspect, and within forty-eight hours the bullæ usually break, giving exit to a thin serous discharge, which continues to be secreted for a few days longer, the surface thus exposed being red and excoriated; the discharge then accretes into a thin scab, of a yellowish color, and a foliaceous aspect, which, falling off on the sixth or seventh day from the first appearance of the eruption, is succeeded by a slight epidermic desquamation and yellowish stain of the surface; the former ceases from the tenth to the fourteenth day, but the latter often lasts for an indefinite period. In the acute form of pemphigus the eruption may occur in a single crop, but there are more usually two or three in succession, an interval of from twenty-four to forty-eight hours existing between them; and as each set of bullæ runs a similar course, the duration of the disease is then prolonged for about three weeks. Two or more bullæ being occasionally developed close to each other become confluent, and thus a very large vesification is often formed. On some of the inflammatory patches, on the other hand, no elevation of the epidermis occurs, when, however, there is more swelling of the part, and a serous exudation takes place from its surface.

The feverish symptoms always abate on the development of the eruption, and the local heat and itching are much diminished, but the appearance of each successive crop of bullæ is marked by their return. In some cases the fluid contained in the bullæ is absorbed when they do

not break, and the disease terminates with epidermic desquamation, while in others superficial ulceration occurs, and then its duration is more prolonged, and indelible marks are often left on the skin.

Willan termed the disease *Pompholyx benignus*, when the premonitory fever was very mild, and the local inflammation trifling. He also described a very rare form of the eruption under the name, *Pompholyx solitarius*; in it "large vesications arise on some part of the body, one after another, at nearly equal intervals of time; a disagreeable tingling is felt for several hours before the vesication arises, which is usually in the night. It enlarges rapidly, so as sometimes to contain on the following day a teacupful of lymph. Within forty-eight hours the cuticle breaks, the lymph is discharged, and a superficial ulceration remains. Near this another vesication arises in a day or two, and goes through the same process as the first. A third, fourth, fifth, and sixth vesication will sometimes appear, and proceed in like manner." This singular variety of pemphigus seems to affect women solely; it is extremely rare, yet Willan mentions that he witnessed three cases of it; Cazenave states that he saw one remarkable instance; and Copland records its occurrence under his observation in a man.

The most usual site of acute pemphigus has been already indicated, namely, on the thighs and lower part of the abdomen, but it may affect the arms, the backs of the hands, the legs, and the thorax; it has been also witnessed on the mucous membrane of the mouth and tongue.¹ It most usually occurs in adult life; but infants and children are not unfrequently attacked; and a variety has been specially described by some dermatologists under the denomination of pemphigus *infantis*.

This corresponds with the form so admirably depicted by the late Dr. Whitley Stokes,² as being not uncommon in Ireland, and which he termed Pemphigus *gangrænosus*

¹ See Chausit, *Traité Élémentaire des Maladies de la Peau* (p. 95). Paris, 1853.

² *Dublin Medical and Physical Essays*, Vol. i, p. 146: Dublin, 1808.

(Plate V, Fig. 3)—popularly known as *white blisters*, *burnt-holes*, or *eating-hives*. By some recent writers, however, it has been regarded as a species of *Rupia*, but to any one who has witnessed it in our country districts, where it is even in the present day of not unfrequent occurrence, its agreement with the characteristic phenomena of pemphigus must be sufficiently evident.¹ The eruption generally appears on a child in apparently good health, but occasionally a livid suffusion of the surface of the body precedes its outbreak; one or more bullæ appear on the surface, and increase in size for a few days, when they burst and discharge a thin fluid, having a disagreeable smell; “before or after breaking, the vesicles run together, the sore becomes painful with loss of substance, and a thin, fetid, ichorous discharge; the edges of the ulcer are undermined, and it spreads quickly.” The discharge daily increases in quantity, and becomes more and more fetid, the ulcers spreading rapidly, probably from its acridity, and the constitutional fever, which is evidently caused by the local irritation, is extreme; emaciation and great debility quickly ensue, and the child dies on the tenth or twelfth day, death being often preceded by convulsions. Should recovery take place, the progress to convalescence is very tedious, and relapses not unfrequently occur, even when the ulcers are skinned over. A deep pit, like that resulting from smallpox, but much more extensive, is always left. The eruption appears usually very generally over the body, sometimes spreading to the meatus auditorius, when deafness follows, and to the eyes so as to destroy the sight.

A detailed account of an interesting case of this disease will be found in the late Dr. George Alexander Kennedy's *Medical Report of the Cork Street Fever Hospital for the years 1844-45* (p. 37). To this report there is

¹ In the following account of the disease, the faithful and original observations of Dr. Stokes are freely made use of. He first called the attention of the profession to this disease as it occurs in children. Its symptoms were long known to the peasantry before the disease itself was first described by Dr. Stephen Dickson in the *Transactions of the Royal Irish Academy*, Vol. i.

appended what Dr. Neligan termed a "graphic illustration" of the case which he afterwards transferred to his *Atlas of Cutaneous Diseases* (Plate V, Fig. 3).

Authorities are about equally divided as to the alleged syphilitic nature of this disease. On the affirmative side are found Paul Dubois, Devergie, Cazenave, Ricord, Dugés, Diday, Wichman, and Jörg: on the negative Krauss, Barnes, Cazeaux, Bazin, and Hardy. Fox believes that when it occurs on the general surface it is non-syphilitic; but on the hands and feet, when accompanied by ulceration, marasmus, and syphilitic history of the parents, "it is probably specific." See his *résumé* of the adverse statement at p. 118 of his work, from which the above is condensed.

Pemphigus chronicus (Plate V, Fig. 2) is of more frequent occurrence than the acute form of the eruption, and sometimes appears as an epidemic; of this a remarkable example is recorded by Dr. McBride, who witnessed it in the county of Wicklow in 1766. The disease, which corresponds with the *Pompholyx diutinus* of Willan, is not attended with any febrile symptoms, yet the outbreak of the eruption is preceded for some days by sickness, debility, and muscular pains. Red spots, as in the acute form, appear scattered over the skin, but the redness is of a livid color, and is not accompanied by heat or itching; on these spots the bullæ are rapidly developed, each bulla covering completely the reddened surface, so that to the naked eye they appear to have no areola, but when examined with a lens, a narrow red line will be seen to surround each. The vesications, which generally attain their maximum size in a single night, are much larger than in the acute form, and rarely become confluent; they come out almost invariably in successive eruptions, a second crop sometimes not appearing until the one which preceded it has completely disappeared from the surface, and thus the disease may be indefinitely prolonged.

The bullæ are irregularly globular, somewhat flattened at the summit, and contain a citrine-yellow, semi-transparent, serous fluid—in old persons or in broken-down constitutions the fluid is generally sanguinolent in some

of the bullæ; in eight or ten hours they burst, and are succeeded by the formation of thin, blackish crusts, beneath which the surface of the skin is excoriated; when these crusts fall off, small unhealthy ulcers, with a foul ichorous discharge, not unfrequently succeed.

If the disease is not prolonged by the development of successive crops of bullæ, which, however, is rarely the case, it may not last longer than for a month or six weeks, and the general health is but little affected; more usually, however, a relapse takes place, the eruption seeming to lie dormant during the winter, returning again in the spring and summer, and thus, or by fresh sets of the bullæ continuing to be developed, its duration is prolonged for months, or even years, very frequently proving fatal. In the latter case there may be seen on the cutaneous surface, at the same time, recent bullæ, and black crusts and atonic ulcers, the results of previous eruptions. The constitution then sympathizes; extreme debility, with low fever, ensues on the loss of rest caused by the local irritation, pain, and foul discharge; the appetite fails, and the patient dies quite worn out.

In one very chronic variety of pemphigus which attacks old persons, the bullæ form with extreme rapidity, no distinct interval elapsing between the development of the successive crops; they become confluent, burst almost as quickly as they appear, and spread so as to engage the cutaneous surface over the greater part of the body, the face in especial being affected. The bullæ are succeeded by epidermic desquamation in large, yellowish, foliaceous scales, which, partly adhering to and partly peeling from the subjacent integument, gives a singular aspect to the disease; these scabs are aptly compared by Cazenave to the layers of puff paste, and he terms the eruption in which they occur pemphigus *chronicus foliaceus*. It is generally a very fatal form, death being preceded by dropsical effusion and diarrhœa.

Chronic pemphigus may occur on any region of the body, except those parts on which hair grows; it is more diffused than when the disease is acute, and appears more frequently on the upper extremities, the face, and the thorax. It not uncommonly is complicated with other

cutaneous diseases, especially with prurigo or scabies, in either of which cases the sufferings it occasions almost baffle description.

The *causes* of pemphigus are more or less connected with constitutional derangements; the chronic form in particular rarely occurring except in persons who have been debilitated by distress, and by insufficient or bad diet, or in those who suffer from some chronic visceral disease, of which it seems at times to be symptomatic. Acute pemphigus is most frequent in children and young persons, infants even not being exempt from it, appearing rarely in adults or in the old; while chronic pemphigus is a disease of advanced life. The eruption is occasionally developed in children after a continued exposure to the heat of the sun; but it much more frequently seems to depend on the effects of moisture, most of those at any age who are attacked with it being persons who had lived in damp situations; this fact is well established in the country districts of Ireland, where it is most prevalent among the peasantry who dwell in mountainous districts, much rain falling there, and the hills being constantly enveloped in mists. The occurrence of the disease as an epidemic has been already adverted to; some of the ancient medical writers regarded it as being contagious; and Willan, by describing a variety of it under the name *Pemphigus contagiosus*, tended to perpetuate this erroneous view, one, too, which was contrary to his own opinion.

The *diagnosis* of pemphigus, whether acute or chronic, is, in most cases, unattended with difficulty. Although the bullæ resemble somewhat the vesications which occasionally accompany erysipelas, they are never situated on a diffusely inflamed portion of the skin, as occurs in that disease, nor are they attended with the constitutional fever. The diagnostic marks between pemphigus and herpes have been given in the description of that eruption. Rupia differs from pemphigus in there being in it a broad inflammatory areola to each bulla when it is first developed, and in the peculiar appearance of the resulting scab or crust. The foliaceous form of chronic pemphigus might be mistaken for psoriasis, but the scales in the

latter desquamate more freely, are smaller, of a silvery whiteness, and are never preceded by an eruption of bullæ, nor attended with a serous discharge.

Prognosis.—Pemphigus in any of its forms is not untended with danger, notwithstanding Willan termed one variety of it *Pompholyx benignus*. The chief apprehensions in the acute form are, the liability to relapse when it appears in children, or about the age of puberty; and, at an earlier age, that it may assume the characters of the pemphigus gangrænosus of Stokes. The chronic form is always a most dangerous disease, few old persons recovering from an attack of it. The more acute the symptoms, and the more inflammatory the constitutional disturbance, the more favorable the prognosis.

As regards the *pathology* of pemphigus, it is manifestly an atonic inflammation of the superficial layers of the derma, which terminates in serous effusion; the fluid contained in the bullæ is highly albuminous, becoming nearly solid when exposed to heat.

Dr. Fox states the fluid to be alkaline; adding, that Scherer (*vide Simon's Animal Chemistry*) declares it to be acid; that Professor Malmsten detected uric acid in it, while Bamberger thought the disease was due to an "ammoniaccal dyscrasia." From the statements of several authorities, he concludes "that the urine is deficient in amount, of high specific gravity, very acid, and contains a large amount of urea, but is deficient in the earthy salts."—*Op. cit.*, p. 120.

Treatment.—The acute forms of this eruption demand but little medical interference—the accompanying fever being rarely such as to require any active antiphlogistics; should it, however, continue after the bullæ are fully developed, or inflammatory symptoms then appear, a small abstraction of blood from the arm may be requisite [? Ed.]: but in the majority of cases, rest in bed, diluent drinks, reduced diet, and mild saline purgatives will suffice. The vesications should be as much as possible protected from local irritation, and, above all, from being prematurely ruptured; with this view they may be dusted over with flour or starch; as soon as they have burst they may be dressed with some simple ointment,

such as the cucumber or acetate of zinc cerate, or colloidion may be applied over them. When acute pemphigus presents the characters described by Dr. Whitley Stokes, all debilitating plans of treatment must be carefully avoided, good nourishing diet should be given in abundant quantity, the air be at once changed, and powdered bark, with minute doses of the pulvis cretæ aromaticus cum opio and of the hydrargyrum cum cretâ, administered internally. On the suggestion of Dr. Stokes, an ointment prepared with lard and the leaves of the common figwort, *Scrophularia nodosa*, was used as a local application in this form of pemphigus; he states that he derived his knowledge of its beneficial action from an inquiry into the applications which were popularly employed with success in the country districts of Ireland, in all of which he found that the leaves of this indigenous plant formed a principal ingredient; at his recommendation it was originally introduced into the *Dublin Pharmacopœia*, from the last edition of which, however, it was omitted. It was, in fact, but a mild astringent ointment, and its chief efficacy probably depended on the protection from the action of the air which it afforded; a weak cerate of tannic acid—two grains to the ounce of white wax ointment—melted, and applied to the surface with a camel-hair pencil, just as it is again about to become concrete, will be beneficially substituted for it.

In chronic pemphigus the chief indications are to allay both the local and constitutional irritation, and to support the strength; attention must also be directed to any visceral disease of which it may be symptomatic, or with which it may be complicated. I have experienced very great benefit in its treatment from the free use of opiates, which may be given, combined with bark, as in the following form:—

R. Liquoris Opii Sedativi, . . . minima decem.
 Tincturæ Cinchonæ Compositæ, . minima quindecim.
 Aquæ Camphoræ unciam. Misce
 Fiat haustus statim sumendus: repatur idem sextis-horis.

To allay the local irritation, the parts may be covered with raw cotton or dusted with starch; or, if the itching

and pain are very severe, they may be dressed with lint on which has been spread the compound lead cerate, to every ounce of which a fluidrachm of glycerine has been added. By some it has been proposed to open the bullæ as soon as they appear, and to apply to the surface thus exposed a solution of nitrate of silver, containing a scruple of the salt to an ounce of distilled water; instead of the solution, Dr. Graves proposed to employ the solid nitrate for this purpose, and mentioned a case in which its use was attended with complete success;¹ the practice, however, is only admissible when the eruption is of small extent, and not connected with constitutional derangement. In very obstinate cases arsenical preparations and iodide of potassium are occasionally employed with benefit. Wine and generous diet should be allowed in all cases of chronic pemphigus, and change of air (to a drier locality) enforced, if possible. When diarrhœa or dropsical symptoms occur in the course of the disease, they are to be treated on the ordinary principles. See cases of Pemphigus Gangrænosus and Pompholyx Diutinus, in Dr. William Moore's paper "On Some of the More Aggravated Forms of Diseases of the Skin" (*Dub. Hosp. Gaz.*, 1850, p. 35); also papers by Dr. James Russell, of Birmingham, in *The Medical Times and Gazette*, Oct. 29, 1864, and Oct. 21, 1865.

RUPIA.

RUPIA (from *Ρυπος*, sordes, see Plate V) is characterized by the eruption of distinctly-separated and dispersed flattened bullæ, of the size of a small nut, on an inflamed base, terminating in elevated dark-brown crusts, which, falling off, are succeeded by atonic ulcers. The bullæ, which in most cases are not preceded by either local or constitutional inflammation, contain from the first a semi-opaque or ichorous fluid, which appears not to distend them completely; this fluid rapidly becomes sero-purulent and more consistent, and the epidermic covering of

¹ *Clinical Medicine*, Second Edition, Vol. ii, p. 354; and Reprint from Second Edition (1864), p. 709.

the bullæ, giving way usually on the second or third day, accretes into a wrinkled scab, more prominent in the centre than at the circumference. These varieties of rupia are in general described by dermatologists, but the third of these, rupia *escharotica*, as has been already mentioned when describing pemphigus, is a form of that eruption, being the pemphigus gangrænosus of Dr. Whitley Stokes—two forms, therefore, only remain to be considered here:—

Rupia simplex.
“ prominens.

In *Rupia simplex* (Plate V, Fig. 4) the bullæ are but few in number, often not more than two or three, and situated remotely from each other; the inflammatory areola is narrow, and scarcely raised above the level of the surrounding integument, and the crusts, which are of a dark-brown color, only slightly elevated in the centre. The resulting ulceration is superficial, and scabs cover it in a few days; these scabs, which are wrinkled and raised at the edges, fall off and are renewed several times for from one to two or three weeks, when the surface heals, a livid stain, which does not disappear for some time, remaining on the part. The duration of the disease until the falling off of the scabs is, as above remarked, from two to three weeks, unless, as occasionally occurs, it is prolonged by the formation of new bullæ at the time those first developed are about to disappear. In some rare cases a slight degree of fever precedes the appearance of the eruption, and superficial redness, as in pemphigus, marks the spot on which each bulla is about to form

Rupia prominens (Plate V, Fig. 5) is so named from the characteristic appearance of the crusts or scabs which are formed in it. The bullæ are of larger size than in rupia simplex, the patches of the cutaneous surface on which they occur are previously swollen and of a dark red color, and the contained fluid, which is often ichorous or sanguinolent, sometimes as dark as chocolate, rapidly thickens and dries into a hard, wrinkled, blackish crust, surrounded by a swollen, inflamed border. From the

inner edge of this inflamed areola, unhealthy pus is secreted, which, concreting, forms additional crusts; these, pressing on the original scabs, already somewhat raised in the centre and corrugated, force them still more forward until they eventually attain such a prominence that they bear an extraordinary resemblance to the shell of a limpet, or in some cases—spreading from their circumference until they cover the entire of the inflamed border by which they were surrounded—to the shell of an oyster. These crusts, which are firmly adherent and slow in falling off, in a few days become somewhat raised at their outer border, and permit the discharge of unhealthy pus from the excoriated surface beneath; in the course of a week or ten days they may be readily detached, or they fall off spontaneously, when an excavated atonic ulcer, the depth of which is usually proportioned to the thickness of the scab, is seen to occupy the site of the original bulla. These ulcers are extremely indolent, pale, and bleeding on the slightest touch, and either become covered anew with the characteristic crust, which, however, does not attain the same degree of prominence as in the first instance, or, discharging an unhealthy ichorous pus, heal slowly, leaving dark livid stains on the skin. *Rupia prominens* is always a chronic disease, lasting generally for months, and its duration is often prolonged by successive eruptions of bullæ.

The usual site of either form of *rupia* is on the lower extremities, sometimes on the abdomen, the loins, or the thorax; but, unless when occurring as a syphilitic eruption, it is very rarely witnessed on the upper extremities or the face. The disease may occur at any age, but it most usually affects children and old persons, being uncommon in adults.

The *causes* by which it is produced are sufficiently obscure, but it appears to be connected with a debilitated state of the constitution, and especially in children with the scrofulous diathesis. It is also one of the sequelæ of the eruptive fevers in young persons, and in the old it not uncommonly occurs at the termination of some prolonged illness, such as fever or dysentery. *Rupia* is sometimes complicated with other cutaneous diseases,

more particularly scabies, ecthyma, and purpura; in the last case the bullæ usually contain blood.

Mr. Erasmus Wilson considers *R. simplex* and *R. prominens* to be essentially syphilitic, and has included them in group XIV of his "Clinical Classification," under the head of "Syphilitic Affections." *R. escharotica*, the third variety, recognized by him, as by most dermatologists, he considers to be the same as pemphigus gangrænosus already described.

Diagnosis.—Rupia may be confounded with either pemphigus or ecthyma. From the former it is distinguished, even in its vesicular stage, by the bullæ being solitary, never confluent, and by the raised inflammatory border which surrounds them; when the scab is formed, its characteristic prominence serves to render the diagnosis easy. Ecthyma is an inflammatory pustular eruption, and the resulting scabs are small and flat, while rupia is distinctly vesicular at its origin, and the scabs are large and prominent. The more serious mistake may be made of mistaking idiopathic for syphilitic rupia, which is a much more severe disease, and one requiring different treatment; the latter is distinguished by the areola surrounding the bullæ being of a dull coppery hue; by the bullæ being much more numerous, often covering nearly the entire body, and appearing very frequently on the face; by there being generally present, at the same time, syphilitic sore throat; and by the antecedent history of the case.

The *prognosis* in rupia is always favorable; it is often an obstinate but never a dangerous disease, and rarely injures the general health, unless the resulting ulcers are very numerous, and attended with much discharge, when a degree of low, irritative fever is developed by their presence.

Treatment.—Constitutional remedies are chiefly to be relied on in the treatment of rupia, and these should be adapted to the indications in individual cases. Tonics, especially preparations of bark and of iron, good food, and nourishing diet, are most usually demanded. When the disease becomes chronic, hydriodate of potash will be given with benefit in equal parts of the decoctions of elm

bark, of dulcamara, and of mezereon; and in the case of scrofulous children, cod-liver oil should be prescribed. As regards local treatment, it is generally recommended to open bullæ at the earliest opportunity, so as to prevent, if possible, the formation of the crusts; they should then be covered with pledgets of lint, and slight pressure made on them, or they may be dusted with starch, or, what is still preferable, as the chief object is to exclude the air, collodion may be applied. When the crusts have formed, they should be removed as quickly as possible, having been previously softened by the application of bread and water, or of linseed-meal poultices; the ulcers, for the first few days, should be treated with water-dressing, over which oiled silk is placed; but if they do not show a disposition to heal, stimulating ointments or lotions become requisite; of the former, the brown citrine ointment, or one composed of equal parts of oil of turpentine and of white wax ointment, may be used; or of the latter, if it be found, as is often the case, that greasy applications disagree, solutions of the sulphate of copper or of sulphate of iron, from six to twelve grains of either to the ounce of distilled water, may be employed, lint soaked in them being laid on the ulcerated surface. Some of the French dermatologists report that they have derived excellent results from ointments of the iodides of mercury—a drachm of the green or twelve grains of the yellow iodide to the ounce of lard. By some practitioners it is recommended to touch the ulcer every second or third day with the solid nitrate of silver, but the nitrate of copper, allowed to deliquesce, and then applied by means of a camel-hair brush, will, in very obstinate cases, be found more beneficial. It must not be omitted to mention, that Rayer states he found the simple practice of dusting the ulcers with finely-powdered cream of tartar very successful.

SCABIES.

Scabies, from *scabo*; supposed to be *Ψώρα* of the Greeks; Gale of the French; Kratze of the Germans; *Anglicè*, the Itch; *Scotticè*, the Yuck; popularly in

Ireland, the Scotch fiddle; Nethek in Leviticus xiii. 30 (Heb.); and θραιύμα by the LXX in the same passage.—See Plate VI.

SCABIES (*Itch*).—No little difficulty has been at all times experienced in classifying scabies; by some it is regarded as being papular, by others pustular, and by many modern dermatologists it has been made to constitute a division of cutaneous diseases of which it is the type—the presence of parasitic animalcules beneath the epidermis being considered by them as a necessary characteristic of the eruption. There can be no doubt but that during the course of the disease pimples and pustules constantly occur on the skin, mingled with the vesicles, and the vesicles themselves assume a purulent aspect in a few days after they are developed, yet on careful observation it will be found that the eruption is at first always distinctly vesicular, and that this character is never completely lost in any stage of the affection. The occurrence of the peculiar itch animalcule is very constant in scabies, and its existence easily demonstrable; but as cases do occur in which even the most experienced observers are unable to detect it, I cannot admit that its presence is necessary to and pathognomonic of the disease.¹ For these reasons, then, and also because the peculiar vesicle of the scabies is highly characteristic, I shall retain it amongst the vesiculæ. It has always been an eruption of much interest to the physician in consequence of its great prevalence, the rapidity with which it spreads by contagion, and the severity of the local symptoms with which it is attended.

The eruption in scabies, the development of which is unaccompanied by constitutional symptoms, is preceded by itching and tingling of the parts on which it is about to appear, usually the backs of the hands, the angles between the fingers, and the flexures of their joints; in about twelve hours afterwards there may be seen developed on them one or more conical vesicles, which rapidly enlarge until they not unfrequently attain the

¹ Wilson, Fox, and most of our modern writers, consider the disease to be dependent upon the presence of the acarus, but most surely it cannot always be found by careful observers.—[EDITOR.]

size of a small pea, being more or less solid at the base, and transparent at the apex, which is acuminate. The majority of these vesicles soon become opaque and sero-purulent, and, bursting, form yellowish scabs; but in some of them the serous effusion is absorbed, and they then present a papular appearance, a thin epidermic scale forming on the top of each papule. In the neighborhood of some of the vesicles may be seen, in most cases of itch, a narrow line or superficial fissure of a few lines in length, such as would be made with the point of a needle—the *sillon*, which terminates in a small, rounded, elevated point, of a reddish color—the *cuniculus* or burrow of the itch animalcule, and from which, with a little care, it may in general be extracted.

This insect—the *Acarus scabiei*, or, as it has been also termed, *Sarcoptes hominis*, being constituted into a new genus by Latreille—was discovered and described as existing in scabies in the twelfth century by Avenzoar; but although its presence was evidently known to the Greek and Roman physicians, little notice of it occurs afterwards in medical writings until the middle of the seventeenth century, when an Englishman, Mouffet, left in a posthumous work a singularly full and accurate description of the animalcule, especially as regards its anatomical characters, and in which many of the so called discoveries of modern days are anticipated. In our own times the natural history of the itch animalcule has been especially investigated by the French and German dermatologists, particularly by Renucci, Raspail, Albin-Gras, Hebra, and Bourguignon; amongst English writers Mr. Erasmus Wilson gives a very full account of its habits and structure, and from his observations the following description is condensed.

Examined with the naked eye the *acarus scabiei* looks white, shining, and globular in form. "There is no difficulty in extracting the little animal; the cuniculus is seen without difficulty; the end of the cuniculus is perceived to be a little raised, while a grayish speck is seen beneath it, as soon as this little eminence of epiderma is lifted, if the end of the needle or pin with which the operation is performed be examined, the minute, white,

and shining globe will probably be observed attached to the instrument. If there be no such object, the point of the needle, placed again beneath the raised capsule of epiderma, will pretty certainly draw it forth. This facility of extracting the little creature is due to its great power of clinging to any object with which it comes in contact. When the acarus is seen running upon the surface of a plate of glass it may be perceived that its anterior margin presents a dusky tint of color, and the examination of this part of the creature with the microscope brings into view a head not unlike that of a tortoise, and a pair of large and strong legs on each side of the head. These organs are encased in a moderately thick layer of chytine, and have consequently the reddish-brown tint of the cases of certain insects, or of the bright part of a thin layer of tortoise-shell."¹ The general outline is sub-rotund, it being a very little longer than broad; the ventral surface is flat, and upon it may be seen the head and eight legs; the dorsal aspect is arched and uneven, and covered by numerous spines; and twelve hair-like filaments, some long and others short, project backwards from the posterior segment of the animalcule. Mr. Wilson, from a comparison of the measurements in ten specimens, found them to vary between $\frac{1}{4}$ th and $\frac{1}{7}$ th of an inch in length, and $\frac{1}{3}$ rd and $\frac{1}{4}$ th in breadth.

This account refers to the female acarus, and with it are generally found some of the ova; the male insect seems to have eluded the research of many investigators; M. Bourguignon, writing in 1847, says, "that he has never found male sexual organs in the acarus, but in every specimen he examined has seen ovaries with the ova, it appearing that connection with a male is not requisite for the reproduction of the animalcule."² Gustav Simon, Physician to the Charity Hospital at Berlin, describes the male acarus, in the first edition of

¹ Erasmus Wilson on Diseases of the Skin. Third Edition, p. 499. See also p. 275 of the Fifth Edition of that work (1863); and the very full and recent account in his *Student's Book*, p. 118 (1864).

² *Recherches Entomologiques et Pathologiques sur la Gale de l'Homme*. Paris, 1847, p. 8.

his *Anatomical Description of Diseases of the Skin*, published in 1848; and in 1851, it was also discovered and described by M. Lanquetin, a pupil of M. Cazenave. It is much more minute than the female, and being always situated on the free surface of the skin, not taking up its abode in a cuniculus, accounts for its existence being overlooked by so many careful investigators.

A full and recent account of the male acarus will be found in Fox (*op. cit.*, p. 247), taken, for the most part, from the researches of Hebra and Hardy; and in Plate XVI of Dr. Neligan's Atlas will be found illustrations of both the male and female insect.

The eruption in scabies is invariably attended with severe itching—whence the name by which the disease is commonly known—this, causing the sufferer from it to scratch and tear the skin with the nails, increases the local inflammation, which already is considerable; fresh vesicles appear, often thickly set on the surface, and mixed with them large papulæ and pustules; a bloody serous and sero-purulent discharge flows from the torn integuments, in which deep fissures are also formed, and the eruption spreads rapidly, in severe cases attacking the lower extremities, the abdomen, and the trunk, as well as the hands and arms, but being very rarely, if ever, witnessed on the face. The sufferings occasioned by the disease are then extreme; sleepless nights are passed often for weeks together, the itching being always much augmented by the warmth of the bed; the constitution, consequently, sympathizes more or less, and in the old or the debilitated, prurigo, ecthyma, or pemphigus complicates the original eruption, rendering it more intractable, and in very aged persons even fatal.

Reference has been made to the “suffering” of the patient; but Mr. Wilson remarks that the pruritus is a kind of tickling itching which is said to be *pleasurable*; and so King James I. seems to have thought from delicious experience—for he is said to have declared “that none but kings and princes should have the itch, for the sensation of scratching was so delightful.”—*Student's Book of Cutaneous Medicine*, p. 121. This sensation was not, however, deemed so pleasant by others, for Lorry (*De*

Morbis Cutaneis, p. 225) very graphically describes it as a "pruritus enormis et scalpendi desiderium immane."

In some cases of scabies the eruption is apparently altogether papular, but on examination with a lens it will be found that a minute vesicle surmounts each papule; from mistaking its true character, Willan and Bateman termed this form of scabies *papuliformis*; when the vesicles are perfectly transparent, and with little or no inflamed base, they denominated the disease scabies *lymphatica*; and when the pustular character predominated, they constituted it a distinct variety, under the name scabies *purulenta*. The occurrence of the eruption in broken-down constitutions is not unfrequent, and its aspect being then influenced by the physical condition of the individuals attacked, the same dermatologists arranged it in a distinct species, which they called scabies *cachectica*.

Causes.—Scabies occurs at all ages, in individuals of every rank of life, and in all climates, being even more prevalent in hot countries than in cold, and there it is also a more severe disease; it is of much more common occurrence among the poor than among the higher orders, in consequence evidently of the less frequent ablutions to which their bodies are subjected, and the longer period during which their clothes are worn without being changed, for the eruption is especially a concomitant of filthy habits. That the spread of the disease from individual to individual takes place by contagion is undoubted, but that this is the only cause some have questioned, believing that it may be self-generated in the system; however, such a doctrine is now nearly obsolete, and the sole difference of opinion existing on the matter at present may be said to be as to which is the contagious principle in scabies, the *acarus*, or the matter of the eruption. Mr. Erasmus Wilson asserts his belief that "the vesicle is a provision of nature to protect the derma from the nearer approach of the *arator*, and the vesicle is formed with the judgment which usually marks nature's operations—namely, before a defensive operation would be too late." Now, how the approach of the insect is to be prevented by the formation of the vesicle, I must con-

fess I cannot understand; the *sillon*, or track from the cuniculus, always terminates in a vesicle, and observation shows that the development of the vesicle precedes the appearance of the animalcule; I therefore think that the connection between them may be more simply explained by regarding the *sillon* as being the track of the acarus in making its way from the vesicle—which has been caused by the irritative inflammation occasioned by its deposition from the skin of another person, no matter how conveyed, or in the fluid of which it has been hatched—to the cuniculus or burrow, for the purpose of depositing its ova. The belief of those, then, who think with that dermatologist is, that scabies, being in all cases dependent on and caused by the acarus, can alone be propagated by the deposition of this insect, or of its ova, on the epidermis, and that the secretion from the vesicles will not of itself reproduce the disease. Direct experiment, however, proves that it may thus be propagated; but to this they answer, that when it is so, the inoculating matter employed must contain some of the ova; but a similar argument is equally applicable to their view, namely, that when the disease has been produced in individuals by the acarus being placed on the skin, it cannot be denied that the animalcule conveyed with it some of the characteristic secretion.

Dr. Frazer (*Treatment of Diseases of the Skin*, p. 65) doubts that the acarus, which so generally accompanies this disease, is the cause of it. He states that it abounds in cheese, flour, raw sugar, and other vegetable and animal substances; and is convinced that it resorts to the scabby skin to obtain nitrogenous food. Remarking that all persons are not equally susceptible, he argues that if the acarus be the exciting cause the itch would become more general than it is. He also observes that the insects are not always the same; *e. g.*, in Norway, where a different insect is associated with the itch; and states that those who have once had the disease, obtain an almost complete immunity from future attacks, while the untouched are very susceptible of it. His views, like those of Dr. Neligan, are opposed to the present *vox populi medici*; but the Editor, who has had considerable experience in

the treatment of this disease, is prepared to concur in what Dr. Neligan has advanced from the positive fact that the *acarus* cannot *always* be discovered in cases of scabies by *all* careful observers, and because the argument from a particular to an universal, which is that adopted by those who are convinced that *they* invariably discern the insect, is invalid.

For my own part, I am of opinion that scabies will be developed in a person whose skin has been previously free from the disease by the contact of either the itch-insect or the secretion from the eruption, but I believe the latter to be the most frequent cause of the contagion, and in this way only can we account for the many cases that occur in which the disease has been produced by contact with clothes, with gloves, &c., which have lain by for some time; in one instance which I saw, a lady was attacked with scabies on the palms of her hands, and as far as observation, which I freely admit is not indisputable evidence here, enabled me to judge, the contagion was conveyed to her from her servant-man, who was affected with the disease, by means of the handles of the knives which he was in the habit of cleaning.

From experiments which have been made it appears that scabies is more quickly developed in the young and in individuals of a full and robust habit of body than in the old, or those who are of a weak constitution; the period of incubation in the former being about four days, while in the latter it may extend to ten days or a fortnight, or even longer.

The *diagnosis* is, in some cases of scabies, extremely difficult, and in no other cutaneous eruption is it more important that a mistake should not be made, especially as a plan of treatment adapted for it is not at all suited for those diseases with which it is likely to be confounded; moreover, an opinion given with regard to contagion, if it prove to be incorrect, may seriously injure a physician's character. When eczema appears on the fingers or hands it is very often mistaken for scabies; in its early stages the minuteness and number of the vesicles generally suffice to render the diagnosis facile, but when it becomes chronic, the itching with which it is attended

not unfrequently may lead to error. Eczema, however, never presents the conical-shaped vesicles of scabies, the discharge from the parts affected with it is more watery—being rarely sero-purulent except in eczema impetiginodes—is accompanied by a mealy epidermic desquamation, and it is rather a sensation of smarting and stinging than of true itching that attends it. The papular form of scabies may be mistaken for lichen, more particularly when the latter affects the backs of the hands; but the complete absence of vesicles and of a sero-purulent discharge in the latter, generally suffices to prevent the mistake from being made; the eruption, too, does not spread to the flexures between the fingers, the most usual seat of itch. Prurigo, which, like lichen, is a papular eruption, is liable to be confounded with scabies, chiefly in consequence of the severe itching with which it is attended; but it rarely affects the hands unless when it appears as a complication of that disease, its usual seat being the trunk of the body, the shoulders, and the thighs; and the small black crusts on the summits of the papulæ produced by scratching are highly characteristic; it is, moreover, very rarely accompanied by any discharge. When scabies assumes the pustular character, and the individual pustules attain a large size, it might be mistaken for ecthyma, but the latter is characterized by not being attended with itching, by its mode of development, and by the pustules being usually isolated. In fine, from all the cutaneous diseases now enumerated, scabies is especially distinguished by its contagious nature, and by the presence of the acarus; but it should be remembered that it may be complicated with any of them.

Prognosis.—As this eruption can scarcely be said to prove dangerous to life, except in the rare instances already referred to, the prognosis refers only to its probable duration, and this, when effective treatment is adopted, is always very short; but if scabies be left to itself, and not interfered with by the application of remedies, it may be indefinitely prolonged, as it never seems to exhibit a tendency to wear out, or to undergo a spontaneous cure.

Treatment.—If there be any well-established example of a *specific* in the whole *Materia Medica* it is that of the

action of sulphur in the treatment of scabies; and as this medicine never fails to cure the disease, it is the universally admitted remedy for it; none other indeed would require to be alluded to, were it not that the unpleasant odor of sulphur renders its employment in some instances inadmissible. The general method of using this substance for the treatment of scabies is by the local inunction of ointments containing it, either alone or combined with alkalies; in the latter form it is generally employed in the present day in France, and found to be more efficacious than when used alone; the combination was first introduced by M. Helmerich, and the ointment, which is called after him, *Pommade d'Helmerich*, is composed of two parts of sulphur, one of carbonate of potash, and eight of lard. The surface of the entire body, but more particularly of the affected parts, should be first washed well with a strong solution of soft soap, the patient then placed for a quarter of an hour in an alkaline bath, containing a pound of the carbonate of potash to twenty gallons of water, at the temperature of 92° , the skin well dried, and this sulphuro-alkaline ointment afterwards thoroughly rubbed in; the disease may thus be effectually cured in two or three days, a single friction, preceded by the alkaline saponaceous bath, being used daily. Out of upwards of 700 persons treated on a plan nearly similar to this at the Hôpital St. Louis in Paris, M. Bazin only met with six unsuccessful cases, all the rest being cured on the third day.¹ M. Hardy, who succeeded M. Bazin in the charge of the itch wards in this hospital, has introduced a plan of using the sulphuro-alkaline ointment there, by which the period required for a complete cure is reduced to *two hours*. His method is as follows: "On the admission of the patient the entire surface of the body is rubbed, for half an hour, with soft soap—*savon noir*; he is then placed in a bath for an hour, and the body well rubbed while in it, and at the end of that time general friction made and continued, for half an hour, with Helmerich's ointment. The acarus," adds M. Hardy,

¹ *Journal de Médecine et de Chirurgie Pratiques*, Decembre, 1851, p. 529.

"is thus killed, and the patient consequently cured." Of 400 patients thus treated, it is said that 4 only required to return for further advice, and of these 2 had recontracted the disease.

A question arises as to whether it is advisable to cure thus suddenly a vesicular eruption, which in some cases is attended with a rather copious discharge; M. Devergie, a celebrated dermatologist, and one of the senior physicians to this hospital, thinks it may be dangerous to do so, but I cannot agree with him; for as scabies is not attended with any constitutional disturbance, and is never symptomatic of an internal disease, the same causes do not operate against the sudden cure of it as against that of cutaneous diseases the discharge in which is evidently dependent on some deranged condition of the system generally. M. Devergie, however, asserts that although the contagious nature of scabies is destroyed by this plan of treatment, a troublesome cutaneous eruption still remains—one, too, attended with much annoyance to the patient, and often difficult of cure.

When any insuperable objection exists to the employment of sulphur for the cure of scabies, other applications may be had recourse to which, although more tedious in their action, are equally efficacious; the use of any of them will invariably be beneficially preceded by the employment of frictions with soft soap, and of the alkaline bath. Oil of turpentine made into an ointment with eight times its weight of prepared lard, is a very certain application, but its odor is to many persons more objectionable even than that of sulphur; this may to a great extent be removed, and its efficacy rather increased, by the addition of eight minims of oil of bitter almonds to each ounce of the lard, combined with it. The ointment of sulphuric acid, of the former *Dublin Pharmacopœia* (1829), which is free from any unpleasant odor, rarely fails to cure the disease: stavesacre and white hellebore ointments, also, have been used with success; the former is prepared by mixing, with prolonged trituration, one part of the powdered seeds of the *Delphinium staphisagria* with four times its weight of white wax ointment and one part of glycerine, and the latter by combining two

ounces of the powdered root with half a pound of prepared lard, and adding twenty minims of oil of lemons. Inunction with simple fatty matters even, such as olive oil or lard, has been found sufficient to cure scabies, but the duration of the disease is more prolonged than when any of the above-mentioned remedies has been had recourse to.

In Lieutenant-Colonel Jebb's *Report on the Discipline and Management of Military Prisons* (Blue Book, 1852) it is stated that a cure can be made in two hours by rubbing the skin with brick-dust, to expose the acari; next rubbing in sulphur-ointment for half an hour, and finally, washing with soap and water.—See *Braithwaite's Retrospect*, Vol. XXIX, p. 260.

Dr. Decaisne, physician to the garrison at Antwerp, affirms that oil of petroleum instantly kills the acarus, and acts as a disinfectant against the larvæ in the clothes.—*Glasgow Med. Journ.*, Jan., 1865, p. 428.

A strong objection often existing with some persons to the use of greasy applications, lotions of the sulphuret of potassium, or of chlorinated lime or soda, may be substituted for them; of the former twenty grains, and of either of the latter sixty grains to the ounce of distilled water, should be employed.

With reference to internal treatment nothing more is usually requisite than the administration of saline or sulphurous cathartics, and the use of the former should never be omitted; in very obstinate cases the combined employment of sulphur as an internal remedy and an external application is not alone attended with benefit, but often absolutely demanded.

Should the local inflammation run high in young persons of robust constitution, bleeding from the arm even may be indicated, but this is very rarely requisite. [In the Editor's opinion it is wholly unnecessary.]

In all cases of scabies constant ablutions with soap and water constitute an essential part of the treatment, and the clothes which had been worn previously should be laid aside, as, from their retaining the contagious matter, the disease may be reproduced after a cure has been effected.

Since the publication of the first edition of this work in 1852, the mode of curing scabies has been so settled as to leave room for little or no further improvement. The Editor refers to the treatment with a preparation composed of a penta-sulphide of calcium, and a hypo-sulphite of lime ($3\text{CaO} + 12\text{S} = 2\text{CaS}_5 + \text{CaOS}_2\text{O}_2$). This is now in universal use in our military hospitals, where it has superseded every other method, and is prepared by boiling one part of quicklime, with two of sublimed sulphur, in ten of water, until the two former are perfectly united; stirring meanwhile with a piece of wood, and decanting the mixture into a well stopped bottle. The patient takes a hot bath, and then has some of this fluid rubbed diligently into his skin for half an hour, after which he takes a second bath, and comes out, cured, to dress in fresh clothing.

In the thirty-third volume of the *Dublin Quarterly Journal of Medical Science* (p. 474) the Editor called attention to the importance of this mode of treatment, and detailed several cases in point. Since then he has had it very often tried with unfailing success; and when he adds that he has had the experience of the senior medical officer of a militia regiment for more than ten years, it will be admitted that he is specially qualified to express an opinion in this matter.—See also *Braithwaite's Retrospect*, Vol. XXXIV, p. 266; and Dr. Frazer (*Treatment of Diseases of the Skin*, p. 68); also a paper on Scabies in the *Brit. and For. Med. Chir. Rev.*, Aug. 1865.

CHAPTER IV.

PUSTULÆ.

THE Order PUSTULÆ includes those cutaneous diseases that are characterized by the eruption of circumscribed rounded elevations of the epidermis, which contain pus, and are situated on an inflamed base—*pustules*; the pustules, which may be either pyodermic or phlyzacious (see page 42), burst and form scabs or thick crusts, on the falling off of which a slight, not permanent depression or stain is left. Pustular eruptions are non-contagious, attended with more or less inflammation, usually of a subacute or chronic character, and their duration may be either very short or much prolonged. The local inflammatory action by which a pustule is produced affects the deeper structures of the derma as well as the epidermis, in consequence of which the sub-epidermic effusion is purulent, while in vesicular eruptions the superficial layer of the derma only being inflamed, the effusion is serous. In its early stage a pustule can scarcely be distinguished from a papule, inasmuch as the pus on which its specific character depends, does not usually appear at the apex until the second or third day; the purulent secretion then gradually increases, distending the epidermic covering more and more, until, finally, it gives way, when the matter is effused on the cutaneous surface, and a scab is formed; of this process an excellent example is afforded in the case of the pustular eruption artificially produced by the local application of tartar emetic in the form of ointment or solution. While undergoing these changes, the pustule is said, in popular language, to be *ripening*. Some of the diseases included by Willan and Bateman in this order were so classed by them from an incorrect idea of their true characters;

thus scabies, for the reasons given in the last chapter, is more properly placed among the vesiculæ; variola is one of the eruptive fevers; and porrigo is not pustular in any of its stages. Acne, included by them in the division which they termed Tubercula, presents the aspects of a true pustule, according to the foregoing definition. The group then comprehends four forms of cutaneous eruptions: Acne, Impetigo, Ecthyma, and Furunculi.

ACNE.

Acne (Willan and Bateman), ἰσθός of the Greeks; Varus of the Latins; Couperose of the French; Finnen of the Germans. Acne is derived from ἀκμή, from its appearance at the full growth and evolution (acme) of the system. It is used by Ætius (*Tetrab.* II, serm. iv, cap. 13) as a synonym for ἰσθός, which not only means a pustular eruption occurring during the growth of the "prima lanugo," or first beard, but also means the lanugo itself.—See plate IV.

ACNE consists in the eruption of psyracious pustules, with a hardened base, distinct from each other, but usually aggregated in small patches on a circumscribed inflamed portion of the skin; when they mature, bursting and giving exit to purulent matter, which dries into thin, brownish crusts. The pus first appears as a minute dot at the apex of each pimple, which is somewhat acuminate, then, gradually increasing in quantity, the pustule becomes globular, and of a straw-yellow color, its base still remaining hard, red, and painful, and surrounded with an inflamed areola. At times, some of the pustules, taking on an indolent action, little or no matter forms in them, when they present the appearance of hard, inflamed, minute tumors, about the size of a small pea, and exquisitely painful to the touch, and are slow in disappearing. The seat of the inflammatory action in acne is chiefly in the sebaceous glands, and the disease is not unfrequently produced by obstruction at their orifices causing an accumulation of the natural secretion and consequent irritation. By some modern dermatologists it has, therefore, been made to constitute

a distinct class of cutaneous eruptions, *e. g.*, it is defined by Cazenave as consisting in "a diseased condition of the follicular secretion." Erasmus Wilson includes it in Group XX of his "Clinical Classification"—Affections of the Sebiparous System; M. Hardy includes it in his Second Order—Inflammatory Affections; and Hebra places it in his Fourth Order—Exudative. Acne is a disease chiefly of youth and of adult life, occurring with greatest frequency about the age of puberty, whence, as before observed, its name, derived from the Greek word *ἀκμή*, vigor. The several varieties of the eruption which have been described may, I think, be reduced to two forms:—

Acne simplex.

" rosacea.

Bielt was the first to describe a rather rare cutaneous eruption as a variety of acne, terming it acne *sebacea*, in which the sebaceous follicles become hypertrophied and their secretion diseased; and nearly every dermatologist since his time has adopted his views, and retained the name proposed by him; as, however, it does not in any respect resemble acne, except in being an affection of the sebaceous follicles, it will be more correctly classed in the group of cutaneous eruptions which I propose to term Hypertrophixæ.

Acne simplex (Plate VI, Fig. 3) is a very frequent disease in young persons, especially in those in whom the cutaneous capillary circulation is active, appearing generally in the spring and autumn, and disappearing partially in summer and completely in winter; it may consist in the eruption of only a few scattered pustules on the face, or may occur in small patches, or pretty thickly disseminated over a large portion of the cutaneous surface, especially affecting those regions where the sebaceous follicles are most numerous. The pustules, whether few or many, are developed individually, and do not coalesce; each of them appears first as a small, red, acuminated elevation, hard, and somewhat painful, particularly so if the skin where it occurs is thick; within twenty-four or thirty-six hours the pustule, which has

continued to enlarge, presents at its apex a yellowish point, which increases for a day or two, when the epidermis gives way or is ruptured, and pus, mixed with the curdy sebaceous secretion of the follicle which may have been involved in the local inflammation, is discharged; although each pustule has an inflamed base, there is no diffuse surrounding redness of the skin. Many of these pustules do not mature, but, remaining indolent for a few days, terminate by resolution, the lymphic effusion contained in them being reabsorbed; some slight hardness and redness, however, are left, which gradually disappear.

In some persons, who are characterized for the most part by having a coarse, greasy skin, the sebaceous and hair follicles are peculiarly developed, and secrete copiously the thick curd-like matter which naturally exists in them; individual follicles often become obstructed at the orifice, somewhat distended, and present a black point at their apex; they then exhibit the appearance described by some dermatologists as a distinct variety of acne, under the name *acne punctata*.—Plate VI, Fig. 4. The curd-like matter, when pressed out by the fingers, forms a round cast of the follicle in which it existed, and, owing to its size and shape, and the black point at its extremity where it had been exposed to the action of the atmosphere, bears much resemblance to a small maggot, and which it is commonly believed to be. Although this popular notion is, it need scarcely be said, erroneous, Dr. Gustav Simon has discovered in the natural sebaceous secretion a minute animalcule, from the 0.085th to the 0.125th of a line (German measurement) in length, and about the 0.020th of a line in breadth; it was named by him *Acarus folliculorum*, but has more recently been shown by Einsicht not to be an acarus, and is therefore termed by the latter *Steatozoön folliculorum*.

The eruption in acne simplex is thus usually composed of maturing and non-maturing pustules, and of enlarged obstructed follicles characterized by black points—the latter are constantly present on the cutaneous surface in some individuals; it may consist in a single outbreak affecting a more or less extended surface, or it may

appear in successive crops, being consequently then of more prolonged duration. No constitutional fever or other disturbance attends the disease, even when it attacks many regions of the skin simultaneously; nor, although some pustules may be attended with pain, are the local symptoms troublesome, being chiefly annoying in consequence of their being situated on the face, and therefore causing a temporary disfigurement. The duration of individual pustules, when they run an acute course, is from five to eight or ten days; but when they are indolent, or appear in successive crops, the disease may be prolonged for as many weeks; in the latter case the marks left on the skin are slow in fading away. Appearing and disappearing with the seasons, being developed in spring and autumn, and receding in summer and winter, acne simplex becomes less frequent as youth changes into puberty, and with adult life either ceases altogether, or, becoming nearly permanent, is converted into the next variety to be described.

The usual seat of the simple form of acne is on the face, the neck, the shoulders, and the chest; it occasionally occurs on the scalp, where it is exquisitely painful, although the pustules are few in number, and very scattered; but it is very rare on the extremities.

Acne rosacea—*Gutta rosacea*; *Rosy-drop*; *Carbuncled face*; *Brandy face*—(Plate VI, Fig. 5) is a disease of more mature life than the preceding variety; it has especially attracted the attention of the French dermatologists, by many of whom it is described as a special disease under the name of *Couperose*. The eruption, which is invariably seated on the face, usually becomes chronic, but in all its stages is attended with more local inflammation than acne simplex; it generally commences in the form of a red patch on the skin, on which is rapidly developed a cluster of minute pustules, or rather pimples, hard, and but little elevated; these enlarge gradually, but are slow to mature, and their base becomes harder, often painful, and much inflamed. Eventually giving way at their apex, a serous exudation, mixed with blood, oozes forth, which concretes into a hard, dry scab, and from beneath it a small quantity of a curdy pus escapes in a few days

after. The hardness at the base of each pustule, however, still remains, and the rosy or crimson-violet patch of the skin, on which a varicose condition of the superficial veins is sooner or later developed, is often persistent on the face for months, or even years, spreading gradually over the nose, cheeks, forehead, and chin, fresh crops of similar pustules constantly appearing on it.

When this form of acne is chronic, it assumes a very aggravated character, and from its unsightly appearance causes great mental annoyance; the skin of those parts of the face on which it is situated becomes thickened and elevated, from effusion into the subcutaneous areolar tissue, caused by the repeated fresh attacks of inflammation consequent on the development on each successive crop of pustules; it presents a permanent roseate hue, which is deepened on every exciting cause—exposure of the face to heat, indulgence in the pleasures of the table, or mental emotions; and the surface is hypertrophied, rugose, and seamed with the cicatrices from pustules of previous eruptions.

In its most chronic form it constitutes what has been termed acne *indurata* (Plate VI, Fig. 6), but I have seen this variety of the disease not unfrequently succeed acne simplex, and even sometimes appear as an indurated and tuberculated eruption from the first; it might, therefore, probably be made to constitute a distinct form of the eruption, but it has so many features similar to those of acne rosacea, and so commonly occurs apparently as an advanced stage of it, that I have thought it better to describe it as such. Acne *indurata* is characterized by the eruption being much elevated over the surface of the skin which is of a violaceous-crimson hue, and consists in conoidal pustules, about the size of a pea, extremely hard and tuberculated, and presenting minute points of suppuration at their apex. These pustules are not very painful to the touch; they do not scab over; but whenever they mature and burst they leave a bluish cicatrix or pit, resembling that of smallpox. Those that may be set closely together usually coalesce, and present then the appearance of boils, but the contained matter is small in quantity, the aggregated bases extremely hard and mi-

nute, and superficial ulcers, covered with a yellowish soft scab, form on their apex. Acne indurata, when it is an advanced stage of acne rosacea, or when it occurs as an independent disease, is invariably situated on the face, affecting especially the alæ of the nostrils, and the most prominent portions of the cheeks; when it is consequent on acne simplex it may appear on any of the regions of the body mentioned as being liable to be affected by that form of the eruption.

Causes.—Acne simplex being, as already remarked, a cutaneous eruption of the period of puberty and of the prime of life, appears to be connected with the full development of the capillary circulation of the surface of the body, which at these ages usually prevails; it is also probably for the same reasons most frequently witnessed in individuals of the sanguine temperament; and when it occurs in others it is seemingly dependent on a naturally enlarged condition of the sebaceous follicles, the skin being then usually coarse, sallow, greasy, and shining. It is manifestly hereditary; and local heat, or anything which may determine to the surface, is a frequent exciting cause of the eruption in those constitutionally predisposed to it. Acne rosacea is frequently connected with the state of the uterine function in the female, in many cases appearing for the first time at the turn of life; it also occasionally, but much more rarely, attacks the face of young girls about the period of first menstruation; and when it does so, they are very liable to frequent returns of the eruption on the least exciting cause. It is also a constant accompaniment of a deranged condition of the digestive organs, especially when attended with constipation; and in many persons is evidently caused by indulgence in the pleasures of the table, particularly a too free use of rich wines or of spirituous liquors. Prolonged or extreme mental excitement is also a frequent exciting cause of acne rosacea. An attack of either form may be suddenly produced by the suppression of any accustomed evacuation, such as that arising from bleeding hemorrhoids; and they are very common attendants on pregnancy. Mr. Erasmus Wilson believes it to be essentially a disease of debility, and

"especially of nutritive debility."—*Student's Book of Cutaneous Medicine*, p. 476.

Diagnosis.—The various forms of acne are in general recognizable without difficulty; the parts of the cutaneous surface which they affect, the conoidal shape of the pustules, with their hardened bases, and the accompanying altered condition of the sebaceous follicles, being sufficiently characteristic of the disease. Secondary syphilitic eruptions may be confounded with acne indurata and acne rosacea, from which they are distinguished by their appearing on the extremities, where acne does not occur, at the same time that they affect the face and trunk; by their presenting a tubercular rather than a pustular character; and by the diseased surface being of a dull coppery color; the sebaceous follicles, too, are unaffected. The pustules of ecthyma differ from those of acne in being larger and flatter, scattered over the cutaneous surface generally, especially that of the extremities, and in not having any hardened base. Acne indurata in some cases bears much resemblance to lupus, but the latter disease presents more of a tubercular character, and is always attended with destructive ulceration, either superficial or attacking the deeper structures; in acne indurata, also, the rich crimson hue of the hypertrophied skin with the varicose condition of the superficial veins, and the spots of acne punctata scattered over the surrounding integument, are highly characteristic.

Prognosis.—Acne simplex, though readily removable by treatment, unless when the pustules assume an indolent character, is very apt to return annually until after the age of 25 or 30; and persons who in their youth suffer from it are more liable than others to be affected in after-life with either of the other forms of the disease. Both acne rosacea and acne indurata are very obstinate and rebellious to treatment, in some cases seeming for years to defy all remedial measures. None of the forms tend in any way to shorten life, or to injure the general health.

Treatment.—When acne simplex occurs on those parts of the body which are not ordinarily exposed, medical interference is scarcely needed; in persons of a sanguine-

ous temperament and an active cutaneous circulation, saline cathartics, more especially the saline mineral waters—as those of Cheltenham, Leamington, Epsom, and Scarborough, in England; and of Seidlitz, Marienbad, Carlsbad, and Pullna, on the Continent—will be used with benefit; or, should the disease return in a very active form every spring, a general bleeding [? ED.] practised just before the period of the expected appearance of the eruption will, in strong young persons, of either sex, sometimes prevent its outbreak. When pustules of acne simplex form on the face, the sooner they are opened, and the curdy matter they contain pressed out of them, the more rapidly they disappear. In persons predisposed to the disease the best preventive treatment consists in the use of carbonate of soda—twenty grains to the quart of soft water—instead of soap, to wash the face, and in the application of a spirituous lotion, consisting of two drachms of oil of lemon and half a drachm of oil of rosemary, in a pint of rectified spirit, immediately after the face is washed. In cases where there is much tendency to local inflammatory action, this lotion should be reduced in strength, by diluting it with twice or four times the quantity of elder-flower water. Should the eruption accompany or appear to depend on the derangement of the menstrual function, the treatment should be directed to restore it to a healthy condition, either by the use of evacuants or of tonics, according to the indications in each case. Dr. Frazer recommends, as a useful emmenagogue, one drop of the oil of savin thrice daily. When acne simplex is general over the regions of the body which it affects, warm baths every second or third day, accompanied by friction with a flesh-brush should there be obstruction of the sebaceous follicles, will be found of much service; in chronic cases when the pustules are indolent, and there is rather deficient than increased cutaneous capillary circulation, the use of sulphurous baths—more particularly those of the natural sulphurous waters, as of Lucan, near this city, of Harrogate in England, of Moffat in Scotland, and of Enghien, of Aix-la-Chapelle, of Barèges, and of the Pyrenees, on the Continent—usually constitutes the most efficient plan of treatment.

If it be impossible to obtain the natural mineral waters for the baths, they may be artificially prepared by dissolving four ounces of sulphuret of potassium in thirty gallons of water.

No remedial measures can possibly prove of service in the treatment of acne rosacea until the habits by which the disease may have been occasioned are corrected, and in every case especial attention must be paid to the avoidance of all stimulating articles, both of food and drink, which occasion determination of blood to the face, such as rich meats, spices, spirituous and vinous drinks, shell-fish, pork, raw vegetables, etc., from the use of which the eruption is invariably augmented, if it had not been originally produced thereby; heated rooms, exposure of the face to the fire, continued stooping of the head, and mental excitement or anxiety, must be equally guarded against. When acne rosacea is seen in its early stages, or where there is much inflammatory action present, the application of from four to six leeches behind the ears twice or three times a week at bedtime will be found of much service, and at the same time saline cathartics should be used daily, preceded by mild mercurials, if there is any biliary derangement. The saline cathartic mineral waters are here, as in acne simplex, of especial service; and of them all I have found the Pullna water—which is now very generally imported—the most beneficial; it may be given in the dose of from one to two wineglassfuls, mixed with an equal quantity of tepid water, every morning. When they cannot be procured, one drachm of the compound saline powder, prepared as I have directed in my work on Medicines,¹ dissolved in half a pint of tepid water, may be substituted. The tendency to local inflammation being thus subdued, slightly stimulating applications may then be used, such as ointments of the ammonio-chloride or of the nitrate of mercury, of dried sulphate of iron, of the acetate of copper, etc.; the employment of the first of these will be found especially beneficial; it may be prepared as follows:—

¹ Sixth (Macnamara's) Edition, p. 157.

R. Hydrargyri Ammoniaci,	. . .	grana duodecim ad grana triginta.
Unguenti Simplicis,	. . .	unciam.
Glycerini,	. . . . .	drachmam.
Olei Amygdalæ Amaræ,	. . .	minima tria. Misce.

The ointment should be smeared thickly over the affected part at night, and washed off in the morning with a weak spirituous alkaline wash, containing not more than twelve grains of the carbonate of soda to the pint of liquid, to which from half an ounce to an ounce of glycerine should be added if the skin be hard and dry and inclined to bleed. In every stage of acne rosacea the use of soaps should be carefully eschewed, as they are all more or less irritating; the bicarbonate of soda may be substituted for them, and in the case of men who are compelled to shave, a saturated solution of it mixed with an equal part of olive oil may be used. In chronic cases of the disease, preparations of iodine must be given internally; two grains of the iodide of potassium, dissolved in two ounces of the decoction of fresh elm-bark, with the addition of a quarter of a grain of iodine when the disease is very obstinate, taken at bedtime, will be found perhaps the most efficacious form of administering this remedy.

Should acne rosacea prove rebellious to these plans of treatment, the more active local medication proposed by some dermatologists may be tried; such as the application daily to each inflamed follicle of a small pledget of lint dipped in a concentrated solution of sulphuret of potassium, as proposed by M. Duchesne-Duparc,¹ the contact being continued for from fifteen to twenty seconds; of a concentrated solution of acetate of lead in *white wine* vinegar, as recommended by M. Bretonneau;² or of a solution of two grains of the bichloride of mercury in an ounce of distilled water, washed off in a few moments after with cold water; an application highly spoken of by Dr. Burgess.³

When acne assumes the indurated character which has acquired for it that special denomination, it requires

¹ *Nouvelle Prosopalgie*. Paris, 1847, p. 69.

² *Bulletin de Thérapeutique*, Tome xxxi. p. 285.

³ *Eruptions of the Face, Head, and Hands*. London: 1849, p. 55.

active treatment, both constitutionally and locally; blood may be removed by cupping from the nape of the neck to the extent of from two to four ounces, once or twice a week, according to the youth and constitution of the patient, and daily purgation by active saline cathartics had recourse to; unless, which rarely occurs, the disease appears in an individual of a weak constitution, when preparations of iodine with iron will be found more beneficial. Hebra recommends the application of soft soap to the face, and then of a paste of sulphur in alcohol. He also uses corrosive sublimate (five grains to one ounce of spirit) with a compress for two hours; or a preparation consisting of one drachm of tincture of benzoin, and one grain of corrosive sublimate to six ounces of water. Mr. Startin applies to the top of indolent tubercles with a pointed glass-brush, one drop of this solution, mercury one ounce, nitric acid (s. g. 1.50) one ounce.—*Braithwaite's Retrospect*, Vol. XXXI, p. 343. The best local application is the iodide of sulphur in the form of ointment, the strength of which may be gradually increased from fifteen grains to half a drachm to the ounce of lard. Alkaline washes should also be used as in acne rosacea, and change of air, with the internal use of the sulphurous mineral waters, will be found of especial benefit. Blistering the face with glacial acetic acid or vesicating collodion has been sometimes had recourse to, and it is said with success, in cases of acne indurata which has resisted all other methods of treatment.

Most of the lotions which are empirically employed in acne of the face consist of corrosive sublimate dissolved in bitter almond emulsion, in the proportion of from one to two grains to the ounce; their use for a short time is not unfrequently attended with benefit, but if continued long they cause the skin to become harsh and scaly.

IMPETIGO.

Impetigo, derived, according to Pliny, *ab impetu, impetu agens*; Ψώρα ἐλκώδης, ulcerated psora, of the Greeks; Lepra squamosa, and Lichen vitiligo, of various Latin authors (save Celsus, who uses the term impetigo); Kouba

(Arabic) of Avicenna; Dartre crustacée, Lèpre humide, of the French; Zittermal, der kleinaussatz, of the Germans; crusted tetter.—See Plate VII.

IMPETIGO (*Crusted tetter*).—This term, like so many others applied to designate diseases of the skin, had no determinate signification previously to the time of Willan. It is now understood to indicate a cutaneous affection, characterized by the eruption of numerous psydracious pustules, occurring singly and distinct from each other, or in groups and confluent, with but little surrounding inflammation; they mature rapidly, and discharge a thick purulent matter, which dries into a semi-transparent, greenish-yellow, irregularly-shaped, persistent, solid crust.¹ From beneath this crust, when formed, purulent matter continues to be secreted, often in considerable quantity, and the duration of the disease is thus usually prolonged for some time; the crusts are slow in separating; and when they at length fall off, a red mark or stain is left on the integuments, which, however, gradually wears away. Fresh pustules are developed in successive crops around the region of the skin originally affected, and the disease thus spreads, until it not unfrequently involves an extended surface of the body, which becomes covered with the characteristic, pellucid, soft, greenish crust, and from beneath which purulent matter oozes; when the eruption has existed for some time, cracks and fissures form, as in eczema, but they do not present the red color of that disease, nor are they accompanied by the serous exudation so characteristic of it. Impetigo is a highly inflammatory eruption, and may run either an acute or chronic course. Dr. Neligan was of opinion that it is not contagious; but Dr. Fox, in the *British Medical Journal* for May and June, 1864, has fully described a form of impetigo which was epidemic amongst the patients at the Farringdon General Dispensary, and which he believes

¹ "The pustule of impetigo is of the kind termed *psydracium*, and in the plural *psydracia*, ψυχρά ἰδρῶνια, *frigidæ guttulæ*, that is, a pustule or pustules produced with little heat or inflammation, commonly aggregated or confluent, and, after pouring out 'a thin watery humor, which frequently forms an irregular incrustation.'"—E. Wilson, *Student's Book*, &c., p. 115.

to be contagious. Wilson, Hardy, and Hebra all believe impetigo to be an eczematous affection.

M. Gendrin has carefully described the anatomical characters of impetigo and its seat, having had an opportunity of examining it after death—an opportunity which occurs with extreme rarity, as the disease does not prove fatal, and as inflammatory cutaneous eruptions generally disappear in the course of mortal diseases. The following is the account which he gives of the result of his observations: “At the parts corresponding to the eruption, the skin was more adherent to the areolar tissue than elsewhere, nevertheless, there existed on the external surface of the derma but a slight degree of capillary injection. The cutaneous tissue was more dense than natural, and was of a reddish-yellow hue, but this morbid color only extended for a short way into the chorion. On the edges of a section made through the diseased skin it could be observed that the small reddish, closely aggregated, but only slightly prominent granulations, which were situated beneath the crusts, were made up of minute grains about the size of the head of a pin, of a liquid and greenish-yellow cheesy-like substance; the surrounding cutaneous tissue was red, and matter similar to that which was secreted by the pustules of the eruption, and which, by drying, formed the crusts of the disease, oozed out of it when pressed between the fingers.¹

The various forms of impetigo, which have been described by dermatologists, may, I think, be conveniently considered in two groups, named from the mode of development of the eruption. But as it presents certain peculiarities, when it occurs on the scalp, which require to be specially noticed, I shall describe it under three heads:—

Impetigo figurata.

“ sparsa.

“ capitis.

Impetigo figurata (Plate VII, Fig. 1) is so named from the disease appearing in patches of a circular or ovoid

¹ *Traité des Inflammations*, Tome i.

shape. It usually sets in with feverish symptoms, which both precede and accompany the eruption, never severe but generally well marked, consisting in *malaise*, headache, loss of appetite, and occasionally slight shivering; in children the symptoms amount only to some heat of the surface, and general uneasiness; but at times there are no premonitory signs noticeable, when the disease usually assumes rather a chronic character from the first. Small, rounded, slightly-elevated, red patches appear on the skin of the face—where the disease is of most frequent occurrence—of the trunk, the shoulders, the arms, the hands, or the thighs; and on them psudracious pustules, closely set together, and more or less confluent, are rapidly developed, their appearance being preceded by much local heat and itching. The pustules attain their full magnitude, which rarely exceeds that of the head of a pin, in about forty-eight hours, when they burst and give exit to the contained purulent matter; this, which is very liquid, dries quickly into a pale greenish-yellow, or citrine-colored, soft crust, of a pellucid aspect, and bearing much resemblance to candied honey, so much so that Alibert, from this characteristic, named the disease *melitagra*. The crust generally covers completely the original red patch; it is very friable, and through cracks, which form from the motion of the part on which it may be seated, an ichorous pus oozes; this drying rapidly, adds to the volume of the first crust, until it often acquires a considerable thickness, still, however, retaining its semi-transparency, and kept constantly moist by the discharge from beneath. Should the crusts be removed, or fall off, the surface on which they were seated is seen to be raw, inflamed, and secreting pus, by which they are rapidly renewed.

The original patches of the eruption, should there be more than one, may remain distinct from each other, separated by healthy integument during the whole progress of the disease; but more usually those which are near become confluent, the eruption spreading by the development of isolated pustules or of successive crops on the intervening sound skin. The crusts in the more acute cases remain attached to the surface for three or

four weeks, during which time the discharge continues; they then gradually become drier, the secretion diminishes in quantity, and, unless successive crops of pustules appear, the disease terminates by their becoming detached in separate pieces as it were, a reddish-brown stain being left, which is slow in disappearing, and from which for some time an epidermic desquamation, accompanied occasionally by a slight serous oozing, takes place, causing the eruption, as well remarked by Cazenave, to resemble, somewhat, eczema. Until the crusts commence to dry up and fall off, a constant heat and painful tingling in the affected parts attend the disease; these cause children, and sometimes even adults, to tear the surface with their nails, and thereby aggravate the malady.

In some cases of *impetigo figurata* the symptoms, both local and constitutional, are of a much more severe character than those now described. High fever marks the outbreak of the eruption, which is characterized by active inflammation that extends to the subcutaneous areolar tissue, and affects a considerable surface of the integument, which is red and much tumefied. In its commencement it can scarcely be distinguished from an attack of erysipelas, and was therefore named by Willan and Bateman *impetigo erysipelatodes* (Plate VII, Fig. 3); but on the second day the characteristic psudracious pustules appear on the inflamed surface, when the disease runs the course above described, except that the local symptoms are throughout of much greater severity, the discharge especially being much more copious, and so acrid as to irritate and cause the development of pustules on those parts of the unaffected skin over which it may flow; there is also more or less fever present to the end, and its duration is very prolonged.

Impetigo sparsa (Plate VII, Fig. 2) differs, as its name indicates, from the preceding form in the arrangement of the pustules, which are developed individually, and scattered or dispersed over the cutaneous surface, sometimes pretty thickly on the legs, where it is of most frequent occurrence; but it may affect any part of the body, in children being often seen on the ears, the face, and the neck. When the pustules in *impetigo sparsa* are nume-

rous and closely set together, as usually happens on the folds of integument in the neighborhood of the joints, although they may not coalesce, which they very rarely do, the intervening skin is inflamed, red, and slightly tumid, hot, painful, and tingling. The crusts which form present the same appearance as in impetigo figurata, but they are distinct on each pustule, or cover the site of two or three, rarely more, and are much thinner, softer, and more easily detached. The development of the eruption is attended generally with some fever, and always with an extreme degree of burning heat, sometimes almost insupportable, which remains, but in a less degree, until the crusts are about to fall off; then it returns, if possible, even with greater intensity, and a second crop of pustules is developed in the neighborhood of, and in the intervening spaces between, the first. This is in like manner followed by a third or fourth crop; and thus the disease becomes very often chronic, when the skin is hypertrophied, fissured with red cracks caused by tearing with the nails, of a crimson tint, and discharging a thin, unhealthy, bloody pus, which dries into dark greenish-brown crusts, that at times envelop an entire limb like the bark of a tree; when impetigo sparsa assumes this aggravated character it corresponds with the form described by Willan as impetigo *scabida* (Plate VII, Fig. 4). The duration of this variety of the eruption is always much prolonged, acrid, ichorous matter, of a heavy disagreeable odor, being secreted from the surface beneath the crusts, which are very permanent, and scattered pustules continuing to be developed in the neighborhood, often without any apparent fresh attack of local inflammation; superficial ulcerations also form, and if the limbs are the parts affected they become more or less cedematous.

Impetigo of either of the forms now described is very frequent on the face of infants and young children, and becoming chronic there presents these characteristics in their most aggravated form; the features are completely changed, and the eruption covering them, as it were, with a mask, the disease has been termed impetigo *larvalis*.

Impetigo capitis (Plate VII, Fig. 6) is the only pustular

disease which appears exclusively on the scalp. Its occurrence in children is preceded for a few days by feverish symptoms, frequently attended with vomiting; the surface of the scalp is hot and painful, and the part about to be affected presents an erythematous blush. The eruption makes its appearance either in distinct pustules of a psudracious character, scattered over the head, or in groups thickly set on an inflamed base. In the former case they are about the size of small peas, both in circumference and elevation, and are attended with but little surrounding inflammation. On the second day of their appearance each pustule contains thick, yellow matter at the summit; but it is soon matured, when it bursts, and gives exit to the contained pus, which rapidly dries into a greenish-yellow scab. This form, which to a certain extent corresponds with impetigo sparsa, termed by some dermatologists, impetigo *granulata*—rarely assumes a chronic character, its continuance, when it has lasted for any time, being kept up by an eruption of fresh pustules on other parts of the scalp. It not unfrequently passes into the second form, which is characterized by the eruption occurring in groups of pustules. Their appearance is attended with more decided symptoms of inflammation, both general and local, and the heat and itching are in many cases so severe that children tear the scalp and prevent the disease from presenting the truly pustular character of the first stage. The eruption usually commences on the forehead, involving at the same time some of the hairy scalp; the inflamed patches vary in size and form in different cases; in some extending in their longest measurement not more than from half an inch to one or two inches, while in others the greater part of the scalp is involved from the very commencement; in nearly every instance the skin bordering on the scalp is more or less engaged in the disease, and it often appears at the same time on the ears or on some part of the face. The pustules are not so large as when they occur singly; their coats are apparently thinner, and the pus which they contain is not so consistent, and is of a richer yellow color. They usually become confluent before they burst, and the resulting greenish-yellow—if chronic, greenish-

brown — scab is consequently much more extensive. When the eruption has continued for any length of time, large quantities of bright yellow pus are secreted beneath the greenish crusts, which separate in cracks to give exit to the matter, exhibiting beneath the highly inflamed raw surface of the scalp from which the pus is secreted.

Mr. Balmano Squire says that it is chiefly confined *either* to the anterior or to the posterior part of the scalp, and that where it occurs at the occiput it is associated with the presence of pediculi.—*Medical Times and Gazette*, Aug. 20th, 1864.

In either form of impetigo the hair is unaltered; it is usually matted together by the purulent secretion and the scabs, but it does not fall off or become changed in appearance, even in the most chronic cases.

Impetigo capitis is not contagious; it is met with at all ages, but most generally in early infancy, lasting for several years if not properly treated; it very rarely appears for the first time after the age of nine or ten, but I have seen some instances in which the eruption occurred in advanced life; in them the disease was of the form first described.

In the chronic stage of the eruption small abscesses very frequently form at the nape of the neck, close to the roots of the hair; and some of the chain of lymphatic glands, which lie behind the sterno-mastoid muscle, become enlarged, swollen, and tender, but they very rarely suppurate.

Bateman described a form of cutaneous eruption as a species of impetigo, terming it *impetigo rodens*, and in this he has been followed by Bielt and Rayer; Wilson considers it to be syphilitic, and Hardy calls it “scrofulide pustuleuse;” but the disease is evidently a lupoid ulceration of the scalp, and as such will consequently be considered in the group *Cancroïdes*. Two other forms of the disease have been characterized by M. Devergie as *impetigo purifluens* and *impetigo pilaris*; the former is attended with profuse purulent secretion, and the latter affects those parts of the skin on which the hair grows, the pustules being frequently developed around individual hairs, which thus seem to penetrate them; these, however,

are merely accidental circumstances, and neither can be admitted as sufficient to constitute a special variety of the eruption. The impetigo *sycosiformis* and impetigo *lupiformis* of the same dermatologist are identical, the former with sycosis and the latter with impetigo rodens.

Causes.—Impetigo is of most frequent occurrence in infants and children; when it affects adults, appearing only on those who have a fine transparent skin, being therefore more common in women than in men. In old persons it is usually seated on the lower extremities, especially the thighs; in them it is developed in the form of impetigo sparsa, and assumes a very obstinate character. The constitutional causes of the disease are more or less connected with the scrofulous diathesis, and in children of this temperament it commonly appears about the periods of first and second dentition, its eruption being excited then by the general perturbation of the system thereby occasioned. Anything which produces cutaneous capillary determination of blood acts as a cause of impetigo in those predisposed to it; thus its origin may be determined by irritants applied to the surface, such as washing in very hot water—a frequent cause in infants and children—the use of hard brushes or of fine-tooth combs to the hair, stimulating soaps and cosmetics, and solar heat, or that from a fire; the former accounts for the frequently-witnessed recurrence of the disease in summer and autumn, and the latter for its appearance on the lower extremities of old persons. Prolonged constipation and menstrual irregularities are both frequent exciting causes of impetigo in females.

Diagnosis.—Impetigo is well characterized in all its forms by its truly pustular character, and by the peculiar semi-transparent, soft, greenish-yellow, honey-like appearance of its crusts. From *eczema impetiginodes* it is often with difficulty diagnosed, and both diseases seem frequently in their advanced stages to be precisely similar; yet the copious ichorous exudation—so well described by the French term, *suintement*—and the epidermic desquamation are present usually in all forms of eczema, and in impetigo fresh psudracious pustules are in general being constantly developed in the neighborhood of the

eruption. From *ecthyma* the disease is diagnosed by the small size of the pustules, those of *ecthyma* being phlyzacious, and for the most part scattered singly, or in twos or threes, over the cutaneous surface, and the scab resulting from them is of a dull brownish color; the parts usually affected are also different in the two eruptions. When pustules occur in *scabies* they are of a large size, and a conoidal shape, but that disease is especially distinguished from impetigo by the itching which accompanies it; burning heat, tingling, and smarting, not itching, being present in the latter; the detection of the *acarus scabiei*, of course, renders the diagnosis more precise, but it should be remembered that in some cases both diseases exist together on the same person. *Sycosis*, from its occurrence on the face, has been at times confounded with impetigo; but it invariably affects that part on which the beard grows, and its immediate neighborhood, is not truly pustular, and the crusts which form in it are hard, dry, and of a brown color, and, if examined under a microscope, exhibit the characters of a vegetable parasite.

As impetigo is the only pustular eruption which specially affects the scalp, it can scarcely be mistaken for any other eruptive disease that appears on this part of the cutaneous surface; the chronic form of *eczema* is that with which it is most likely to be confounded; in it the discharge, which is either serous or sero-purulent, dries into brownish-yellow scabs, through which the ichorous liquid forces its way, or into furfuraceous scales, while in impetigo the purulent discharge accretes into large, greenish-yellow crusts, by which the whole head, and even sometimes the forehead and part of the face, is in many cases covered as with a mask.

Prognosis.—The only question here to be considered is the probable duration of the disease, as its existence, when uncomplicated, does not either injure the health or endanger life. In children, although apt to become chronic and obstinate if neglected, it usually yields quickly to judicious treatment; and when situated on the scalp is, in my experience, more readily cured than any of the other eruptions peculiar to that region, if their relative duration previously to the employment of reme-

dies be taken into account. It is in general more rebellious in adults; and when it affects the lower extremities in old persons is a most troublesome and obstinate disease, the form termed scabida by Willan not unfrequently lasting for years, notwithstanding the most careful treatment, at one time showing signs of amendment, but to break out with increased severity again and again. In young persons even the eruption is very apt to return in the summer and autumn months after it has been apparently cured. At all ages the obstinacy of impetigo is in proportion to its previous duration.

Treatment.—The acute stages of impetigo occurring in young persons of robust constitution require rather active antiphlogistic treatment—the daily use of saline cathartics, and local, or even in some cases general bleeding;¹ the local abstraction of blood should be by leeches applied in the neighborhood of the eruption, or behind the ears when it is situated on the face or scalp. When the disease, however, attacks the old or debilitated, bleeding is very rarely admissible; but should it be requisite in consequence of the inflammatory symptoms running high, with much heat and tumefaction of the part affected, a few leeches only should be applied, and the after-bleeding from the bites not allowed to continue; tonics are here more generally indicated, and the use of preparations of iron, combined with vegetable tonics and saline purgatives, as somewhat in the following form, will be found highly beneficial:—

R.	Tincturæ Ferri Sesquichloridi, ²	. . .	semi-unciam.
	Infusi Quassiaë, . . . . .	. . .	uncias octodecim.
	Tincturæ Calumbæ, . . . . .	. . .	unciam cum semisse.
	Magnesia Sulphatis, . . . . .	. . .	uncias duas. Misce.
	Sumat uncias duas fluidas omni mane.		

In children or adults of the scrofulous diathesis, cod-liver oil is the best tonic; and if the eruption is attended

¹ The Editor thinks that the antiphlogistic plan is open to grave question; and he considers the proposal of general bleeding unnecessary.

² This—the Tincture of the *Pharmacop.*, *Dub.*, 1850—corresponds to the Tinctura Ferri Perchloridi of the *Ph. Brit.*; save that the latter is only one-fourth of the strength of the former.

with scrofulous enlargement of the glands of the neck, from a sixteenth to a fourth of a grain of iodine may be dissolved in each dose of the oil, which should not exceed a dessert-spoonful three times a day for children, or a table spoonful for adults; as when given in large doses the local disease is apt to be aggravated apparently from its over-stimulating action on the system.

In the chronic stages of the eruption, the administration of more decidedly alterative medicines is requisite, and a mild mercurial course is often singularly efficacious, especially when the mercury is combined with iodine and alkalies. With this view the green iodide of mercury may be given in the following form for adults, a proportionately smaller dose being prescribed for children:—

R. Hydrargyri Iodidi Viridis,	grana quatuor.
Hydrargyri cum Creta,	rana duodecim.
Carbonatis Sodæ Exsiccata,	grana duodecim.
Pulvis Myrrhæ,	grana sex.
Mucilaginis, quantum sufficit ut fiant pilulæ duodecim.	
Sumat unam ter indies.	

In the more obstinate cases, some practitioners recommend the employment of sulphurous preparations—especially in the form of sulphur-mineral waters; and others have recourse to the use of arsenic; of the latter the preparations most suited for this disease are the arseniates of ammonia and of soda: the dose of either is from the twentieth to the tenth of a grain; they may be given in infusion of dulcamara.

In the impetigo of infants and of very young children but little constitutional treatment is necessary: for infants at the breast, should the eruption exhibit a tendency to assume a chronic character, it will be advisable to change the nurse; and when the disease appears at the periods of dentition, the gums should be freely lanced. The state of the digestive organs must in all cases be strictly attended to, and mild purgatives, combined with alkalies, administered according to circumstances. The alkaline treatment is at this age of especial service; for children of a full habit of body the bicarbonate of soda may be prescribed in doses of from three to five grains, three

times daily, in half a drachm of syrup of orange-peel and two drachms of orange-flower water, and for those of a weak or debilitated constitution, from one to three grains of the bicarbonate of ammonia in the same menstruum. Should diarrhœa or symptoms of any derangement of the brain accompany the eruption of impetigo, we should be most careful not to check the disease too suddenly, more especially if it is attended with discharge.

The local treatment of impetigo is of even more importance than the constitutional, for upon its judicious application, in the first instance, most frequently depends the duration of the disease. It is especially necessary to keep constantly in view that the eruption is of an inflammatory nature, and that even in its most chronic stages a fresh outbreak of inflammation, attended with the development of a new crop of pustules, may be readily excited. The very production of the disease in so many cases by the direct influence of irritants sufficiently proves this, and should warn against the use of irritating applications, which have been often too indiscriminately recommended. In the acute stages, no matter on what part of the cutaneous surface the eruption may occur, alkaline ointments are of especial service; and should there be much local tingling and irritation, chloroform will be beneficially combined with them, as in the following form:—

R. Sodæ Bicarbonatis,	. . . .	grana viginti.
Adipis præparati,	. . . .	unciam.
Chloroformi,	. . . .	minima quatuor. Misce..

This ointment should be smeared pretty thickly over the pustules night and morning, the surface having been previously washed with equal parts of new milk and tepid water. To allay the irritation, unguents and washes, containing various preparations of lead, of oxide of zinc, and of hydrocyanic acid, are recommended by different dermatologists, but I have found none of them as useful as the above. Owing to the moisture from the purulent discharge which is so constantly present in impetigo, the addition of glycerine to the local applications, so far from being attended with benefit, usually proves injurious.

In the chronic forms of the eruption, the crusts or scabs should be always removed carefully before the use of medicated applications; this is done most effectually by the employment of linseed-meal poultices—wet with the weak lead wash (see page 116) when any tendency to local inflammation is present—changed twice in the twenty-four hours, the parts being sponged with a warmed solution of half a drachm of carbonate of soda in a pint of distilled water each time the poultice is changed. The alkaline ointment above described may then be used; or, should the disease be very chronic, an ointment of the dried sulphate of iron, in the proportion of from two to five grains to the ounce of cerate, employed; this preparation even occasionally proves too stimulating, when the acetate of zinc cerate should be employed instead of it. In some cases of impetigo greasy applications are found to aggravate the local symptoms, and then lotions should be substituted for them, such as twelve grains of the acetate of zinc, or six grains of the acetate of lead, or four grains of either the sulphate of copper or the sulphate of iron, dissolved in eight fluid-ounces of elder-flower or of rose-water.

To the use of more active local stimulants, as ointments, baths, or washes of the sulphuret of potassium, of tar, of anthrakokali, of fuligokali, of the *huile de cade*, or of caustics, as the nitrate of silver, my experience is decidedly opposed; as I have generally seen their application excite an outbreak of inflammation, and the consequent spread of the disease by the development of additional pustules.

When impetigo affects the scalp, the hair should always be carefully *cut* close, and the crusts removed by the application of poultices and the use of alkaline washes, as above directed; afterwards the ointment of the bicarbonate of soda, and a lotion of milk and tepid water, will be employed with benefit: the green iodide of mercury, with the hydrargyrum cum cretâ, and the dried carbonate of soda should be given internally. This plan of treatment seldom fails to cure the disease, even in the most chronic forms, in from six weeks to three months, provided there is a careful attendant to carry out strictly

the employment of the local remedies. In any case the hair should not be permitted to grow for some time after all traces of the eruption have disappeared.

Dietetic and hygienic regulations are of much importance in the treatment of impetigo, particularly of its chronic forms; all heating and stimulating articles of food ought to be strictly prohibited, and everything which could cause determination of blood to the surface of the body carefully avoided. In children, the use of a *purely milk and farinaceous diet* will be found to expedite the cure much.

ECTHYMA.

Ecthyma, ἔκθυμα of the Greeks (from ἔκθω), literally *an eruption*; used by them in a general sense, and synonymously with ἐξάνθημα, an eruption; Terminthus of various Latin authors; Bouten of the French; Erbsenblattern of the Germans.—See Plate VIII.

ECTHYMA (*Papulous scall*) consists in the eruption of phlyzacious pustules, on a hardened, more or less inflamed base, usually isolated, but occasionally in small patches, terminating in yellowish-brown scabs or crusts, in very chronic cases, of a livid hue—which, as they fall off, leave small ulcers that heal with superficial cicatrices. When this cutaneous disease attacks the young and the robust it is of an inflammatory character, but in the old and debilitated it assumes from the first an asthenic type: in both it is non-contagious. In children it is rarely met with, still more rarely in infants, occurring most frequently in old persons and in adults. The pustules may appear on any part of the cutaneous surface, but they chiefly affect the extremities, especially the thighs; they appear with the next degree of frequency on the skin of the trunk of the body or on the neck, being but seldom witnessed on the face or the hairy scalp.

The division of ecthyma into varieties, as made by Willan and those dermatologists who have adopted his views, depended either upon the age of the patient, or upon accidental phenomena, having their origin in the constitution of the individual attacked. This being man-

ifestly a bad foundation for a classification, though one not uncommonly followed as regards cutaneous eruptions, is now almost universally abandoned, and but two forms of the disease are described by most modern writers: these I shall adopt:—

Ecthyma acutum.

“ *chronicum.*

The eruption of *Acute ecthyma* (Plate VIII, Fig. 1) is preceded by some degree of fever, usually very slight, amounting merely to heat of the surface, thirst, and headache; in about thirty-six hours afterwards, small, rounded, slightly elevated red spots appear on the skin, generally of one or both of the lower extremities, their appearance being preceded and accompanied by heat and sharp tingling of the parts about to be affected, the constitutional symptoms at the same time subsiding. These spots, which are nearly the size of a large pea, and few in number, are scattered over the cutaneous surface distinct from each other, the intervening skin being healthy; on the second day of their development the centres are raised by purulent effusion, which, increasing rapidly, covers, within twelve hours, the entire of each inflamed spot, thus forming the characteristic *phlyzacious* pustule of the disease, surrounded by a narrow, inflamed areola, and situated on a hardened base; occasionally two or three of the pustules, from being developed close to each other, become confluent, and not unfrequently a few *psyrdracious* pustules form in the neighborhood, being evidently produced by an intensity of the local inflammation. This stage of the eruption is attended almost invariably with severe lancinating pain and a burning sensation, both of which are much diminished, sometimes cease completely, on the maturation of the pustules. The maturation takes place from the fourth to the sixth day, the epidermic covering giving way and the contained pus being effused; a brownish-yellow crust or scab, occupying the site of the pustule, then forms rapidly, and if it be removed, a cup-shaped ulcer with hard edges will be brought into view. The scabs, if not interfered with, fall off sometimes in a few days, but they often do not separate for two or three

weeks, and a small depression, like the pit resulting from smallpox, marks the site of each pustule. It occasionally happens that purulent matter does not form in some of the red spots, and they terminate in resolution, a reddish-brown stain, accompanied by epidermic desquamation, remaining for some time afterwards.

The acute form of the disease thus terminates usually in from a fortnight to three weeks, but its duration is not unfrequently prolonged for five or six weeks by the development of successive crops of pustules, each crop running an independent course. The usual seat of this form of the eruption, as already remarked, is on the lower extremities, but it also appears on the shoulders, the chest, the neck, the arms, and the palms of the hands, and in a few rare cases on the face and scalp.

Ecthyma chronicum (Plate VIII, Fig. 2) is a not uncommon eruptive disease in debilitated constitutions at every age, occurring much more frequently than the acute form; it often attacks unhealthy infants and young children, and from its frequency at the very early periods of life, it was described by Willan as then constituting a distinct variety, and termed by him *ecthyma infantile*. The eruption appears as in the acute form, but there are no preceding or accompanying febrile symptoms, and the local suffering is much less—diminished, not increased, vital action characterizing it. The pustules are generally diffused over the surface, being rarely confined to any special range, and occur isolated, or in patches of two or three; they exhibit a very indolent progress, mature slowly, and form hard dry brownish crusts, which either adhere firmly, or, falling off in a few days, leave a superficially excavated unhealthy ulcer, that discharges a bloody purulent secretion. The matter by which some or all of the pustules are distended in old persons is often sanguinolent, and the subcutaneous areolar tissue infiltrated so as to constitute a prominent, hardened base, of a lurid or dingy-violet aspect, to each pustule; these characters induced Willan to regard the eruption then as a distinct variety, and to name it *ecthyma luridum*. The chronic character of the disease, as regards duration, is due to the continued development, in constant succession,

of the pustules, until at length the integuments of almost the entire body are involved in the eruption; the cutaneous surface then presents a most unhealthy aspect, large portions of it being covered with phlyzacious pustules in their various stages of development, hard dark-brown scabs, superficial ulcers, discharging unhealthy matter, and livid stains, the marks of spots that had healed. The constitution now, in most cases, sympathizes; in old persons extreme debility occurs, and dropsical effusions take place; and the disease in this, its most aggravated form, well deserves the name applied to it by Willan—*ecthyma cachecticum*.

Ecthyma chronicum lasts generally for four, five, or six months, or even longer, being often complicated in its advanced stages with prurigo, scabies, or chronic lichen, and being a frequent attendant on chronic organic diseases in old persons; although it spreads to all parts of the cutaneous surface, it is most thickly disseminated over the limbs, and least so on the face or scalp.

Either form may appear at any age, but the acute is most common in adults, the chronic affecting chiefly the very young and the aged; it attacks both sexes, but after the age of puberty males are more liable to the disease than females.

The *causes* of ecthyma are both constitutional and topical. The former are usually what may be termed hygienic and dietetic; thus residence in damp, ill-ventilated habitations, insufficient clothing, want of due attention to cleanliness, unwholesome food, habits of dissipation, &c., produce a state of the system in which the disease is often developed; and the direct action of substances which irritate the skin constitute the latter. Its association with chronic visceral diseases has been noticed above; it is also not an uncommon sequela of acute febrile diseases, more particularly typhus fever and dysentery.

Mr. Milton believes in the existence of a variety which he calls "vesicular ecthyma" (*Modern Treatment of Some Diseases of the Skin*, p. 87); and M. Hardy gives the name of *ecthyma gangrænosum* to an acute form which

Mr. Wilson thinks very probably corresponds with the pemphigus gangrænosus of Dr. Whitley Stokes.

Diagnosis.—Ecthyma is in general readily recognizable by the *phlyzacious* character of the pustules, and the isolated manner in which they are developed. It might be confounded with either acne or impetigo, but the characters by which it is distinguished from these eruptions have been already described when treating of them. The smaller-sized pustules bear some resemblance to those of modified smallpox, but the mode of eruption of that disease, its appearance first on the face and upper part of the body, and the accompanying fever, are sufficiently diagnostic marks. The pustules of secondary syphilis are, in many cases, very similar to those of ecthyma, and are with much difficulty diagnosed from the lurid form of the disease; the latter, however, occurs seldom except in very old persons, and the presence of the usual concomitant affections of the throat and of the bones in secondary syphilis, together with the antecedent history of the case, marks the cutaneous affections produced by the venereal poison.

Prognosis.—When uncomplicated, ecthyma is not a disease dangerous to life; the chronic form of the eruption is always of prolonged duration, and by its continuance the general health is invariably more or less injured.

Treatment.—In the acute stages of this eruption any inflammatory symptoms that may exist should be subdued by the use of diluents and diaphoretics; minute doses of tartar emetic dissolved in whey, in the proportion of half a grain to the pint, will be found a useful form, and the solution may be made to constitute the ordinary drink of the patient; or the water of the acetate of ammonia may be given in decoction of barley sweetened with sugar, and flavored with lemon-juice. The state of the bowels requires careful attention, and the secretions, if unhealthy, should be regulated by the administration of mild mercurial purgatives, combined with the extract of taraxacum and of colchicum, but active purgation is contraindicated. The only topical remedy requisite is the tepid bath, and from half a pound to a pound of

gelatine should be dissolved in each bath, if there is much local irritation; occasionally, in persons of a full habit of body, a few leeches will be applied with benefit in the neighborhood of the eruption.

The first requisite in the treatment of chronic ecthyma is to remove those causes by which the state of the system with which it is so frequently connected has been produced. In infants, the nurse should if possible be changed, or, if this cannot be done, the child ought to be weaned, and fed chiefly on ass's or goat's milk, mild alteratives, as the hydrargyrum cum cretâ, combined with myrrh and dried carbonate of soda, given, and the body warmly clad, but woollen clothing, as being apt to irritate, should not be worn next the skin. The best local application is calamine ointment, or the affected parts may be dusted with finely-powdered lapis calaminaris; emollient cataplasms or lotions generally aggravate the disease. When the eruption appears in old persons, the first and most important point is to change the air, or at least the locality in which the patient may have been residing: good and nourishing food should be given, and if there is much debility, wine or porter allowed. Should there exist any visceral organic disease, the line of treatment must be directed principally to its alleviation, if possible, and topical applications employed with caution, as the sudden repulsion of the eruption would be likely not alone to aggravate it, but might be dangerous to life. Tonics, combined with alkalies and sedatives, as in the following form, will in general be found useful:—

R. Infusi Cinchonæ Flavæ,	. . .	uncias sex.
Liquoris Calcis,	. . . . .	uncias novendecim.
Tincturæ Lupuli,	. . . . .	drachmas duas.
Succi Conii,	. . . . .	drachmas duas. Misce.
Sumat uncias duas fluidas ter indies.		

When, however, there is much debility present, alkalies should not be given, but the mineral acids, either the nitric or hydrochloric, will then be advantageously prescribed in combination with vegetable tonics; in the lurid form of the eruption, preparations of iron, more particularly the compound or aromatic iron mixture, generally

prove most efficacious. For local applications many astringent and mildly stimulating ointments may be employed; a form that I have seen productive of excellent effect consists in the addition of half a drachm of oil of turpentine to the compound lead-cerate. This should be warmed and applied in the semi-fluid state, being gently smeared over the surface with a feather. The ulcers which form may be touched daily with the solution of nitrate of silver—a scruple to the ounce, or dressed with lotions of sulphate of copper or sulphate of iron—from two to five grains to the ounce of distilled water.

The juniper tar soap has been also recommended; and the Editor has used with advantage Hebra's *tinctura saponis viridis cum pice*, already described.

In all forms of ecthyma the patient should be kept in the open air as much as possible, if extreme debility or accompanying organic disease does not prevent it. During convalescence, exposure to the sea air and the use of the chalybeate mineral waters for adults, will be found of especial service in promoting the restoration of health, and preventing a relapse; and for scrofulous children, the employment of cod-liver oil should not be omitted.

FURUNCULI.

Furunculi may be looked on as a sub order, and may be briefly treated under three heads: *FURUNCULUS*, or boil; *ANTHRAX*, or carbuncle; and *PUSTULA MALIGNA*, malignant pustule, the Charbon of the French.

FURUNCULUS, furuncle, or boil, is, according to Dr. Macleod, "a circumscribed inflammation of the deeper portions of the true skin and the cellular tissue beneath, ending in suppuration and the sloughing of a portion of cellular tissue at its centre." It is generally multiple, occurs at any age, in the feeble and in the plethoric, is sometimes epidemical, occasionally critical, and attends convalescence from low fevers and the exanthemata. It is chiefly found in the loose cellular tissue of the shoulders, neck, back, and nates; as well as in the face, axillæ, thighs, and on the abdomen. It is said to be due to changes in diet, to the use of oatmeal food, and to derangement of

the biliary and digestive functions. It makes its appearance as a small, red, acuminated pimple, attended with burning or throbbing pain, tension, and heat, and usually ends in suppuration. It frequently causes irritation and swelling of the neighboring glands, and may be attended with febrile symptoms. Blind boils are furuncles which do not result in suppuration.

Dr. Fox, following Mr. Wilson, observes that the treatment consists "in elimination, in the administration of tonics, and the alleviation of local distress."

ANTHRAX, according to the excellent description of Dr. Macleod, is "an inflammatory swelling, or carbuncle, which consists of a circumscribed inflammation of the subcutaneous cellular tissue, leading to its death and expulsion." It may arise simply, or in connection with glanders, plague, diabetes, Bright's disease, gout, and various constitutional disturbances. It occurs chiefly in persons of mature or advanced age, of plethoric or feeble habit, and in those addicted to over-eating or drinking. It is met with mostly on the posterior part of the trunk, but sometimes occurs on the scalp. It is ushered in by severe constitutional symptoms, accompanied or followed by heat, itching, redness, swelling, livid discoloration, and intense pain. The part gets brawny from the meshes of the diseased tissue filling with plastic lymph. The tumor remains flat, but slightly elevated. Openings soon occur at several points, giving issue to unhealthy pus; sometimes these openings form one large opening, and gangrene ensues. This affection is frequently fatal, especially when it occurs on the head; and it is said to be originated by various predisposing causes, such as old age, debility, cachexia, and the like.

The treatment belongs more specially to the domain of surgery; and the reader will find more full information than is consistent with the scope of this work in treatises on that subject. The supporting and stimulating plan is that now usually followed in this country, with the local application of yeast poultices and anodyne fomentations. The crucial incision has been long practised, but latterly treatment by pressure, with the view of supporting the capillaries has been extensively advocated.

This plan was originated by Mr. O'Ferrall, of St. Vincent's Hospital, and has been subsequently brought before the public by Mr. Collis, of the Meath Hospital.—See *Dub. Hosp. Gaz.*, Vol. V, and *Dub. Quart. Jour.*, Feb. 1864.

PUSTULA MALIGNA is a disease which man contracts from contact with the inferior animals affected with the *charbon* of the Continent, called in this country “joint murrain,” black quarter, the quarter evil; and in German, “Milsbrand.” “From one to three days after infection (observes Dr. Hillier) there appears on the part affected a small red spot, like a flea-bite, which is sometimes preceded by, and always attended with considerable itching. After about twelve hours a small vesicle, about the size of a pin's head, appears; this contains a little brownish-red or yellow serum, and on its rupture the itching usually ceases, and the skin beneath is seen to be dry and of a dark color. This portion of skin is in reality dead. In less than twenty-four hours a fresh crop of vesicles appears, distended with brownish-yellow serum, situated on an irregular circle round the dead skin. After twenty-four or forty-eight hours the parts beneath the eschar sometimes swell, harden, and form a solid lump, which is tolerably well defined (‘bouton’). The mortification now extends to the circle of vesicles, or beyond it, and fresh ones form around, and the surrounding skin, which was pale, becomes of a livid color. Œdema now comes on in the surrounding integument, which gradually subsides into the healthy tissue. There is little pain, and but little elevation of temperature. The central slough enlarges, bullæ form over the central part, which is hard, and the surrounding œdema is very great.” This disease runs its course in about eight or nine days, and is attended with constitutional symptoms, sometimes from the outset; they are occasionally followed by the prominent symptoms of cholera, and the disease is frequently fatal, always serious, though only a local disorder. The head and neck are its most dangerous seats; and it is treated by the actual cautery, or caustic potash—with internal stimulants and nutritious food.

Further information may be had in a pamphlet pub-

lished by M. Bourgeois, in Paris, in 1861, entitled, *La Pustule Maligne*; in Dr. Wm. Budd's paper in the *British Medical Journal* for August, 1862; in a paper by Dr. Burrows, in the *Medical Times and Gazette*, June, 1856; also in the *Medical Times and Gazette* for 1863 and 1864; and in Dr. Macleod's valuable work on *Surgical Diagnosis*, in which he points out (page 96) the diagnostic signs of anthrax from furuncle and pustula maligna.

CHAPTER V.

PAPULÆ.

THIS group of cutaneous diseases is characterized by the eruption of minute solid elevations of the skin—*papulæ*, or *pimples*—generally reddish, but sometimes of the natural color of the part, or even paler, which contain neither serum nor pus, terminate in the desquamation of fine scales, and are almost invariably attended with intolerable itching. The latter symptom is so markedly a characteristic of papular eruptions that it has induced Cazenave to place them in a subdivision of his sixth group, the definition of which he gives as “general or local hyperæsthesia.” Mr. Erasmus Wilson distributes the three varieties—strophulus, lichen, and prurigo—which were included in Willan and Bateman’s order *Papulæ*, into two of his groups—eczematous affections and nervous affections; Hebra includes them in his order *exudata*; and Hardy places them in his order *Inflammatory Affections*.

Papular eruptions are non-contagious, occur at all ages, and in both sexes, and affect males more frequently than females. The *papulæ*, which are either disseminated and distinct from each other, or aggregated in patches so as to form groups, may appear on a single region of the body, or may be diffused generally over the skin; they vary in size from that of the head of a small pin to that of a pea, and are usually developed rapidly, generally coming out in successive crops. They terminate in resolution, with desquamation of the epidermis in fine minute scales, which continues for some time; but occasionally superficial ulceration of the integuments occurs.

By most dermatologists three forms of cutaneous diseases, characterized by papular eruptions, are described

as originally arranged by Willan, namely, Lichen, Strophulus, and Prurigo; but the first two are manifestly merely varieties of the same affection, their characteristic phenomena are precisely similar, and the only difference between them is that the former occurs in infancy and childhood, and the latter at a more advanced age; I shall, therefore, follow the example of Rayer, Gilbert, Cazenave, Wilson, and others, and, speaking of strophulus as a species of lichen, reduce the number of papular diseases to two, namely, Lichen and Prurigo.

LICHEN.

Lichen; *Λειχήν* of the Greeks; *Papulæ* of the Latins; *Dartre Farineuse*, *Poussée* of the French; *der Zitterich*, *Schwindfluken* of the Germans.—See Plate VIII.

LICHEN (literally the moss of a tree)—including strophulus—may be defined to consist in the development of numerous minute papulæ of the color of the skin, or of a reddish hue, aggregated in patches or disseminated over the cutaneous surface, attended with heat, tingling, or even severe itching, and terminating in superficial ulceration or in epidermic desquamation. A great number of forms, both of lichen and of strophulus, have been described by Willan and other writers on diseases of the skin, and named by them either from the shape, as regards distribution, which the eruption assumes, from the color of the papulæ, from some of the attendant symptoms, from the particular structure of the portion of the integument, anatomically considered, that may be affected, and from the mildness or severity of the disease. Thus there have been constituted no less than nine varieties of lichen, and five of strophulus; they may, however, I consider, be all conveniently considered in three divisions:—

Lichen simplex.

“ strophulus.

“ agrius.

Lichen simplex (Plate VIII, Fig. 3) is at its outbreak very rarely attended with any constitutional disturbance; in some cases slight febrile symptoms, for a few days, precede the eruption, especially in females, but they seldom

amount to more than a feeling of *malaise*, which disappears immediately on the development of the papulæ. These are minute, very numerous, not exceeding in size rape-seed, of a bright red color, and irregularly scattered in patches closely set together over the cutaneous surface; they usually appear first on the upper extremities, and extend thence to the trunk and lower extremities, being preceded by formication of the part on which they are about to occur. The eruption is attended with heat and sharp tingling, which lasts until all trace of the papulæ has disappeared; in some cases, especially in young plethoric persons, the local inflammation runs high, when the whole of the integuments of the affected parts present a bright scarlet color, accompanied by a sense of tension and an extreme degree of itching. Lichen simplex may be either acute or chronic; in the former case the duration of the disease is for about a fortnight, the individual papulæ are resolved in seven or eight days, but as from forty-eight to seventy-two hours elapse between their development on the different regions of the body which they attack, it is prolonged for this time. In the chronic form, successive crops of papulæ make their appearance as quickly as those which preceded them fade away, and thus the disease may be continued for months or even years. The papulæ in either case run the same course, attaining their greatest size on the third day, at which time they are markedly acuminate; they then seem to remain stationary for two or three days more, when they fade somewhat, are less prominent, and a minute scale appears on the apex of each; this desquamates, and a general epidermic desquamation from the affected surface continues for three or four days in the acute, and for a longer period in the more chronic cases. In the latter, the skin after a short time becomes thickened, evidently from depositive inflammation, and the diseased integument is then elevated above the level of the surrounding skin.

In lichen simplex the papulæ differ in size according to the region of the body on which they may occur, being always larger on those parts where the skin is softest, as on the face, the shoulders, and the anterior surface of the

trunk. In the debilitated, in the aged, and in those whose skin is naturally of a dark or unhealthy aspect, the eruption is usually of a dull, livid hue, and in the former is not unfrequently complicated with crimson blotches, or stains of the integument; this form was distinctly described by Willan under the appellation of lichen *lividus*. In another variety, which occurs usually in persons of dissipated habits, as noticed by this dermatologist, each papula in its origin envelops a hair, so that when arrived at its full maturation it presents a singular appearance, seeming to be pierced thereby; he consequently termed the eruption, under these circumstances, lichen *pilaris*; it is always a very obstinate form, assuming from the first a chronic character.

Occasionally in lichen simplex the papulæ, instead of being dispersed over the cutaneous surface, are developed in regularly shaped patches; when these are circular or oval, the circumference is constituted of much larger papulæ than the centre, so that a distinct border to each patch is thereby formed; this variety has been termed lichen *circumscriptus* (Plate VIII, Fig. 4); it is of a chronic character; the rings enlarge somewhat by the eruption of a new papula at their circumference, but its duration is rather prolonged by the development of successive patches in their neighborhood, as those which first appeared commence to fade. The usual seat of lichen *circumscriptus* is on the backs of the hands, the fore-arms, the cheeks, and the trunk of the body; when but one patch of it exist at a time on the surface, it has been termed lichen *solitarius*.—Plate VIII, Fig. 5. In a few rare cases, as first noticed by Bielt, the eruption of papulæ assumes the appearance, as it were, of a piece of ribbon stretched on the skin, generally commencing on the chest, and passing around the arm; he named this form lichen *gyratus*.—Plate VIII, Fig. 6.

Mr. Wilson looks on this variety as simply an alteration in figure of what he calls "lichen *circumscriptus*."

In children and young persons, especially of the female sex, the itching is at times most extreme, and the papulæ are of a much larger size than usual; they are, moreover, occasionally to a certain degree evanescent—thus in most

of their phenomena resembling urticaria, and the eruption, too, appears, as in that disease, in small patches. It is, however, distinctly papular, and has been well denominated lichen *urticatus*. It usually occurs on the neck and side of the face, spreading in a few cases to the chest and abdomen; is of an acute character, seldom lasting longer than a few weeks, and is in general witnessed only in spring and summer.

Lichen strophulus (Gum).—This is a papular eruption peculiar to the early periods of life, being rarely seen except in infants at the breast, and occurring most frequently a few days after birth. The papulæ are of the natural color of the skin, of a reddish or crimson hue, or white; they appear most frequently on the face and upper extremities, but they also in some cases affect the body and the lower extremities. In one form, which has been termed *strophulus intertinctus* (Plate IX, Fig. 1) popularly known as *red gum*, an eruption of very minute red papulæ appears, generally a few days after birth, on the face and the backs of the hands and arms; they are scattered over the surface, and intermingled with them are small erythematous patches; for two or three days their color becomes more vivid, they then gradually fade away, and disappear in from a week to ten days, with some slight epidermic desquamation. Smart itching would seem to accompany the eruption from the uneasiness the infant exhibits.

When lichen *strophulus* appears on the skin at the time the child is commencing to suffer from the irritation attendant on teething, the papulæ, being still of a red color, are much smaller and of a duller hue than in the last described variety, but more numerous, and aggregated together in semi-confluent patches on the face, the chest, the upper extremities, and often also on the abdomen and legs. The eruption is then denominated *strophulus confertus*, and popularly known as *tooth-rash*; it runs a somewhat similar course, though a little more prolonged than *strophulus intertinctus*, and not unfrequently, more especially if the child suffers much from teething, a fresh outbreak of the rash takes place as the first is fading away. In some cases the local and constitutional inflam-

matory symptoms are tolerably intense, when the patches of papulæ are of a bright red color, and less disseminated, occurring in clusters, of not more than from five to ten or twelve, developed successively on various regions of the body, as they fade from one, appearing on another. This variety of the disease, which is rather uncommon, has been termed *strophulus volaticus*—*wild-fire rash*; it is often of tolerably long duration.

The papulæ in lichen strophulus are, as has been before mentioned, occasionally of the color of the skin, or even whiter, and under such circumstances have been regarded as characterizing a distinct variety of the disease—*white gum*; of it two forms have been noticed: one—*strophulus candidus* (Plate IX, Fig. 2)—in which the papulæ are of tolerable magnitude, not surrounded by a red areola, and generally disseminated over the cutaneous surface, but at a distance from each other; and the other—*strophulus albidus*—in which they are of small size, and occur in a few patches, each patch having a red border: in the former case they are usually distributed on the neck, the shoulders, the arms, and the lumbar region; in the latter, on the face, the neck, and the chest. Both are attended, apparently, with much itching but no constitutional disturbance, and seldom last longer than for a few weeks.

Lichen agrius (Plate IX, Fig. 3) is occasionally a sequence of lichen simplex, but more frequently presents its peculiar phenomena from the first. In the latter case its occurrence is preceded for two or three days by smart febrile symptoms, and a remarkable burning heat and redness of the skin, so much so as at times to lead to the apprehension that scarlatina is about to set in; the fever abates considerably, or altogether subsides on the appearance of the rash, which is developed in the form of numerous bright red, minute, acuminate, shining papules, clustered together on an uncircumscribed inflamed patch of the skin, often of considerable extent. The papules do not enlarge in size, but become more elevated from lymph being effused at their base into the subcutaneous areolar tissue, which is in consequence swollen and hard. An extreme degree of painful pruritis

attends the development of the eruption, and is constantly present during the entire of its course, compelling the patient to rub and tear the skin; the itching, which is incessant, is much augmented by anything which increases the heat of the surface, especially the warmth of the bed, and thus renders rest or sleep in bed almost impossible. As the disease advances, the papules ulcerate at their apex, and give exit to a sanious ichor, which concretes into thin, friable, yellowish scabs; the skin becomes more and more inflamed, *thicker*, dry, and rugose, and eczematous vesicles and pustules of acne or impetigo appear, mingled with the lichenous eruption, or, owing to the intense degree of local inflammation, are developed on the surrounding integument. In this extreme form of the eruption, the skin presents an hypertrophied aspect, is of a dark livid color, uneven on the surface, rugose, and fissured, and discharges a copious serosity.

In the comparatively milder cases of lichen agrius the eruption commences to fade about the tenth or twelfth day, the subcutaneous effusion is absorbed, the local irritation diminishes, and the disease terminates in from a fortnight to three weeks with epidermic desquamation. More usually, however, its duration is prolonged for six weeks or three months, even in cases not at all aggravated; and it not unfrequently lasts for years, with occasional remissions during cold weather.

This form of lichen especially affects certain regions of the body, more particularly the face—where its most usual seat is on the forehead—and the backs of the hands and fingers; when it occurs on the face, the swelling of the integuments is usually much greater than when it attacks other regions of the body; the features, presenting a tuberculated aspect, are completely altered in expression, and the eyes are sometimes almost entirely closed from the thickening of the upper eyelid. On the backs of the hands and fingers (*Lichen agrius, dorsi manûs*; see plate IX, Fig. 4) the eruption is in general attended with much discharge, and in some cases complicates scabies, when it causes an extreme degree of suffering.

Heat seems to have a peculiar influence both in producing and aggravating lichen agrius; it is thus not

unfrequently developed in hot summer weather, in this country, in persons predisposed to skin diseases; but it is in warm climates that this influence is especially witnessed, and the eruption is consequently so frequent there that it has been regarded as constituting a distinct variety, termed lichen *tropicus*—the *prickly heat* of the East Indies. The following graphic description of the eruption, which is especially interesting as embodying his personal experience of it, is from the pen of the late Dr. James Johnson. “Among the primary effects of a hot climate may be noticed the prickly heat, a very troublesome visitor, which few Europeans escape. It is one of the miseries of a tropical life, and a most unmanageable one it is. From mosquitoes, cockroaches, ants, and the numerous other tribes of depredators on our personal property, we have some defence by night, and in general a respite by day, but this unwelcome guest assails us at all, and particularly the most unseasonable, hours. Many a time have I been forced to spring from table, and abandon the repast which I had scarcely touched, to writhe about in the open air for a quarter of an hour: and often have I returned to the charge with no better success against my ignoble opponent! The night affords no asylum. For some weeks after arriving in India I seldom could obtain more than an hour’s sleep at one time before I was compelled to quit my couch with no small precipitation, and if there were any water at hand to sluice it over me, for the purpose of allaying the inexpressible irritation! But this was productive of temporary relief only, and what was worse, a more violent paroxysm frequently succeeded. The sensations arising from prickly heat are perfectly indescribable, being compounded of pricking, itching, tingling, and many other feelings for which I have no appropriate appellation. It is usually, but not invariably, accompanied by an eruption of vivid red pimples, not larger in general than a pin’s head, which spread over the breast, arms, thighs, neck, and occasionally along the forehead close to the hair. This eruption often disappears in a great measure when we are sitting quiet, and the skin is cool; but no sooner do we use any exercise that brings out a per-

spiration, or swallow any warm or stimulating fluid, such as tea, soup, or wine, than the pimples become elevated, so as to be distinctly seen, and but too sensibly felt."

Wilson does not look on lichen agrius as a lichen at all: he calls it *lichen eczematosus*. Hebra describes the commonly received forms of lichen under the head of *lichen papulatus*; and under the term *lichen sudativus* he describes two varieties—*L. scrofulosus* and *L. ruber*. The former is associated with scrofula, and exhibits papules in size like millet seeds, of light-yellow or dark-red color. These papules occur in circular or semi-circular groups, chiefly on the trunk, itch but little, are very chronic, desquamate, and disappear. On the healthy skin of other parts tubercular spots, resembling acne, appear, pustulate, and subside. *L. ruber* is characterized by the exhibition of small red papules, distinct, and on parts only of the body, chiefly on the extremities. It afterwards simulates psoriasis; and there are never any excoriations from it. Hebra has seen but fourteen cases of *L. ruber*.

Causes.—Lichen occurs at any age, but its different forms seem to prevail at different periods of life: thus, as has been already remarked, lichen strophulus is a disease of early infancy, very seldom appearing after the process of first dentition is completed, and being most frequent for a month after birth—in fact, few infants then escape it; lichen agrius is most usually an eruption of adult life and of old age; and lichen simplex affects young persons and those in the prime of life. The predisposing, and often also the exciting causes of this eruption are very obscure: it is certainly witnessed most frequently in persons of a nervous temperament, with a fine, easily irritated skin, and in whom the cutaneous capillary circulation is very active, but with deficient perspiration. Mr. Wilson believes it to be essentially a disease of debility. The occurrence of lichen strophulus in infants immediately after birth may be accounted for by the numerous local irritants to which their fine, delicate skin is then necessarily exposed, such as the effect of sudden changes of temperature, of the water and soap used in washing, of the friction employed in drying

the surface afterwards, of the clothing, &c. The action of local irritants has a decided effect in the production of lichen at all ages and in most cases: thus it is caused on the forehead in men by the pressure of a tight hat, on the face and hands by harsh dry winds, and by solar heat or that arising from a very hot fire—the latter is a not unfrequent cause of the eruption in some trades, such as blacksmiths, furnace-men, &c.—and on the legs by the friction of worsted stockings, particularly when the veins are in a varicose condition. In certain occupations lichen is developed on the backs of the hands and on the fingers—in the same manner as other eruptions are—from the irritation of certain substances; thus it is witnessed in grocers, bakers, washerwomen, &c., when it is described as constituting one of the forms of the so-called grocers', bakers', or washerwomen's itch. In many cases lichen seems to be connected with derangement of the digestive organs, and its appearance on the skin in persons who had long suffered from painful affections of the stomach or head was noticed by Bateman and Biett as a favorable circumstance. The use of stimulating drinks, or of heating articles of food, or of spices, will, in some individuals, be followed by a lichenous eruption.

Diagnosis.—Lichen simplex is in general easy of recognition, in consequence of its distinctly papular character; the disease with which it is most likely to be confounded is prurigo, the elementary character of the eruption in both being the same; but in the latter the papulæ are larger and more globular—their apex being rather flattened than acuminate, and they are generally of the same color as the part of the skin on which they appear; the itching, also, which accompanies lichen simplex is not of the same acrid, burning nature as that which is so characteristic of prurigo. When the papulæ begin to fade and to desquamate at their apex, the eruption might be mistaken for psoriasis guttata, from which it is distinguished by the scales being much thinner, more minute and bran-like, and by the papular elevation of the surface from which they separate, as may be recognized with the aid of a lens, or felt by passing the finger over

the part. From scabies and eczema, lichen simplex is diagnosed by the vesicular character of both these eruptions and the copious discharge with which they are attended. Lichen circumscriptus is liable to be confounded with herpes circinatus, or erythema circinatum; from both it is distinguished by the character of the eruption, *papulæ being never witnessed in any stage of either of these diseases*. From urticaria lichen urticatus is often with much difficulty diagnosed; the chief distinguishing characters are *the wheal-like elevations with the paler centres*, and the more decidedly evanescent nature of the former.

The only eruption with which lichen strophulus could be confounded is prurigo, but the age at which it occurs is sufficient to distinguish it from that disease; moreover, in those forms of strophulus in which the papulæ are red they are darker colored than in prurigo, and in the white varieties they are much paler.

The more aggravated cases of lichen agrius, in their advanced stages, bear much resemblance to chronic eczema rubrum, and are often with difficulty diagnosed from it; but careful examination will scarcely ever fail to detect *the papular character of the former*; in it, too, the integuments are much swollen, thickened, and tubercular, the serous discharge and the epidermic desquamation considerably less, while the itching is more intense; the peculiar red cracks and fissures from which the bloody ichor oozes are, moreover, not seen in eczema. On the face, lichen agrius may be mistaken for acne rosacea, from which it is distinguished by the *pustular nature and deep crimson or violaceous hue of the latter*; they also affect different regions of the face, lichen being generally situated on the forehead and the sides of the cheeks in front of the ears and lips, while acne rosacea occurs almost invariably on the nose and the most prominent portions of the cheeks. Impetigo occurring on the face in adults has been confounded with lichen agrius, but *the pustular character and greenish honey-like scabs of that eruption* sufficiently characterize it. This form of lichen is not so liable to be mistaken for psoriasis as lichen simplex, the attendant serous discharge and the characteristic itching marking especially the difference between them.

Lichen is a very frequent form of syphilitic eruption ; it is then characterized by the peculiar dull coppery hue it presents, by its being always of a chronic character, unattended with any inflammatory symptoms, either local or constitutional, by the absence generally of itching, and by the presence of the other secondary symptoms of the venereal disease, together with the history of the individual case. In infants, hereditary syphilis must be carefully distinguished from lichen strophulus; the former rarely presents a papular form, and it occurs in patches or coppery stains, generally attended with a serous or sero-purulent discharge, on various parts of the body, but especially about the pudendal region, and on those parts of the skin on which the hair grows.

Prognosis.—In infants and young children the occurrence of lichen strophulus is quite unimportant, as it generally runs its course in a few days, not being attended with the least danger or injury to health, requiring notice merely in consequence of the accompanying itching, rendering the little patients fretful. In adults and old persons an eruption of lichen, though never attended with danger, is extremely troublesome, in consequence of the local annoyance and suffering by which it is accompanied, and the tendency, more especially of lichen agrius, to become chronic; like most other cutaneous eruptions, the longer its duration has been the more rebellious is it to treatment. The disease is also more obstinate on the face or hands than when it is situated on those parts of the body that are ordinarily covered; and the complication of other cutaneous eruptions with it invariably renders the treatment more difficult. In giving a prognosis in any of the severe forms of lichen it should be remembered that relapses are very liable to occur—the least exciting cause, such as even the heat of the sun in summer, being sufficient to reproduce the disease.

Treatment.—In all papular eruptions a manifest indication of treatment is derived from the hyperæsthesia of the cutaneous structure which accompanies them in their acute as well as in their chronic stages, and this should always influence our choice of remedies, whether tonics or antiphlogistics, according to individual circumstances,

may be required. In their early stages, local applications will in general be found sufficient to check the progress of the eruption, unless when symptoms of inflammatory action are present, but these are usually of a trifling nature and of short duration; when, however, they have become chronic, the most active constitutional alterative treatment is required; and even under its most judicious employment they not uncommonly baffle the physician's art for a length of time.

In lichen simplex occurring in young persons of a robust constitution, restricted diet should be enforced at its commencement, together with rest in bed if the eruption is at all extensive, and the administration of diaphoretics, the bowels having been previously opened by a mercurial purge, provided the papulæ are well developed on the skin: the antimonial diaphoretics, combined with guaiacum and Dover's powder, as in somewhat the following form, are usually productive of more benefit than saline diaphoretics:—

R. Antimonii Sulphurati, grana viginti.
 Guaiaci Resinæ, in pulvere, . . grana viginti et quatuor.
 Pulveris Ipecacuanhæ cum Opio, grana duodecim.
 Ope mucilaginis misce et in pilulas duodecim divide.
 Sumat unam sextis horis.

To allay the itching and local irritation, tepid baths of fresh water may be employed daily, and the skin, having been well dried, smeared afterwards with olive oil, to every ounce of which twenty minims of chloroform have been added. When the general inflammatory symptoms are subdued by this treatment, if the disease exhibits any tendency to become chronic, the compound lead-cerate with glycerine may be applied to the surface, and the parts sponged twice daily with an alkaline spirituous wash.

In any of the forms of lichen strophulus medical interference is scarcely required, and especial care should be taken that no treatment, whether local or constitutional, be employed by which the eruption might be repelled. If any derangements of the digestive organs exist they may require the use of mild alteratives or

gentle mercurial purgatives; and when the eruption occurs at the period of dentition the gums ought to be lanced freely. The annoying pruritus, which so constantly seems to accompany strophulus, is best allayed by the use of the tepid fresh-water bath with gelatine, and the application of olive oil to the spots of eruption; cold cream is also useful for this purpose, or the acetate of zinc cream, to every ounce of which two drops of oil of bitter almonds have been added, may be employed in more aggravated cases.

In the early stages of lichen agrius, while the inflammatory symptoms are present, the treatment should be decidedly antiphlogistic; but unless in strong, healthy, young persons residing in the country, general bleeding is not admissible, the local abstraction of blood, by means of leeches applied in the neighborhood of the eruption, being in most cases sufficient.¹ Even in the chronic stages of the disease this form of local bleeding is in general attended with the best results, as it relieves the congested state of the capillary circulation which is present, but the leeches should never be applied on any part of the skin which is affected, as their bites might give rise there to troublesome ulceration. At first the irritation caused by the eruption is best alleviated by gelatine baths and soothing ointments or lotions; of the former, the carbonate or acetate of lead cerate with chloroform, the compound lead cerate with glycerine, the oxide or carbonate of zinc ointment, with which oil of bitter almonds or hydrocyanic acid has been combined, or the hemlock ointment, will be used with benefit; of the latter, the weak lead wash, to which glycerine has been added in the proportion of a drachm to the ounce, equal parts of camphor mixture and distilled vinegar, a lotion containing a drachm of succus conii, half a drachm of glycerine, and a grain of carbonate of soda to the ounce of elder-flower water, or alkaline washes with hydrocyanic acid, as in the following form, may be employed:—

¹ The Editor cannot concur in this implied recommendation of general bleeding.

R. Boracis,	grana triginta.
Aquæ Rosæ,	uncias octo.
Acidi Hydrocyanici diluti,	drachmas duas.
	Misce.

If any connection can be traced between the appearance on the cutaneous surface of the eruption and disease of some internal organ, or deranged function, the remedial measures employed must be especially directed towards the alleviation of the former, and the correction of the latter. With this view saline and mercurial purgatives are generally required in most cases; and when debility exists, their employment may be conjoined advantageously with chalybeates or vegetable bitters, and the dilute mineral acids. Lichen is not unfrequently associated, in old persons, with the gouty or rheumatic diathesis, and in such cases preparations of colchicum, combined with the liquor potassæ or the carbonate of ammonia, should be prescribed.

In the chronic stages of lichen agrius more active constitutional treatment is usually required, while at the same time attention is paid to any complication that may exist. Iodine and arsenic, either separately or in combination, in some of the forms described in former chapters, will be found necessary, and they may be given with tonics or diaphoretics, according to individual circumstances. When there is general debility present, more especially an anæmic condition of the system, iodine combined with iron in the form of the syrup or pills of the iodide of iron, is most useful. Tincture of aconite is also an excellent remedy, more especially if the hyperæsthesia of the cutaneous surface is well marked, but its administration must, as in all other diseases, be carefully watched; there is nothing to contraindicate its employment at the same time with the powerful alteratives above mentioned. Sulphur and its preparations are highly recommended by many practitioners, in chronic lichen, but I must confess that they have not proved so successful in my hands as they are stated to have done with others. It was at one time too much the custom to administer sulphur in nearly every form of cutaneous eruption, chiefly, I believe, in

consequence of its being evolved so manifestly by means of the insensible perspiration; but for this very reason its use often proves highly injurious, owing to the direct stimulant action it thereby exercises in diseases which are of an inflammatory nature, or which are liable to be aggravated by determination of blood to the cutaneous capillaries.

Mr. Milton gives nitric acid with advantage, and speaks highly of arsenicals in refractory cases. In common with Wilson and Hardy, he prefers the omission of the spirit of lavender in Fowler's solution, and thinks the best mode of administering the latter is in plain water. In this the Editor fully coincides; and in the Dispensary for Skin Diseases, in Bishop-street, liquor arsenicalis is usually given in that way. Mr. Wilson thinks the following is the best form for an anti-pruriginous lotion: Pyroligneous oil of juniper and rectified spirit, of each an ounce; water six ounces. Mix.

Most of the local applications already spoken of will be found beneficial in chronic lichen agrius, but even in the same case they must be constantly varied, according to the severity of the local symptoms; when all inflammatory tendency has subsided, an ointment containing twenty grains of the iodide of sulphur to an ounce of white wax ointment, to which six minims of chloroform are added, will be found productive of excellent effect, an alkaline spirituous wash being at the same time used.

PRURIGO.

Prurigo (Lat. and Eng.); *Κνησμός*, of the Greeks; Prurit, of the French; Das juckten, of the Germans.—See Plate IX.

PRURIGO.—It is very doubtful whether this disease should be termed an *eruption* of the skin or not, so frequently does it occur without any visible phenomena to indicate its existence, the only symptoms present being obstinate, intense itching, without heat, pain, or sensible elevation of the surface. But as in many cases it is attended with the development of papulæ, it must, in an artificial arrangement of skin diseases, be classed with

lichen. The papulæ, when they do occur, are of a somewhat larger size, rounder, and less acuminate than those of lichen; and of the color of the skin, or of a yellowish hue. The disease is essentially of a chronic nature, is not contagious, and is neither preceded nor accompanied by constitutional symptoms; nevertheless, when it has existed for some time, the health becomes more or less deranged in consequence of the extreme suffering caused by the itching and local irritation attendant on it.

Three forms of prurigo have in general been described by dermatologists—*Prurigo mitis*, *Prurigo formicans*, and *Prurigo senilis*; the first two are distinguished from each other merely by the degree of severity of the symptoms, and may therefore be considered together; the third, although denominated simply from its occurrence in old age only, yet requires to be noticed separately, in consequence of some of its phenomena being peculiar and characteristic. I shall therefore describe the disease as consisting of two species, terming them—

Prurigo vulgaris.

“ *senilis.*

Prurigo vulgaris (Plate IX, Fig. 5), then, may be either mild or severe, the latter being the more frequent. The mild variety is developed by the eruption on the cutaneous surface of scattered papulæ, about the size of a millet-seed, without the least redness, inflammation, or sense of heat; they are of the color of that part of the integument on which they may be seated, but little elevated, and scarcely to be distinguished unless with the aid of a lens, or by passing the finger over the surface. The attendant pruritus is not very severe, although sufficiently sharp and stinging to cause the patient to scratch the affected parts with the nails; the papulæ are thus torn, and a minute, blackish crust thereby formed on their apices, which gives a remarkably characteristic appearance to the affection.

In the severe variety of *prurigo vulgaris* the disease may commence with or without the eruption of papulæ, but in all cases they are usually developed in some of its

stages; when they do occur they are more numerous than in the mild form, of the same color, shape, and size, or sometimes even larger. It is, however, the remarkable cutaneous hyperæsthesia and consequent intense pruritus which especially mark the aggravated character of the affection, and from whence it has derived its appellation—*formicans*, the sensations accompanying it being often compared to those produced by the sting of an ant. This comparison, however, very faintly expresses the sufferings attendant on the disease: not a single spot of the skin in its entire extent but is more or less the seat of an extreme degree of itching, which compels the individual affected to tear with his nails and rub the surface all but unceasingly; at times comparative cessation of the pruritus occurs, occasionally lasting for two or three hours, more usually of shorter duration; but it is again exacerbated by the most trifling exciting cause—the friction of the clothes, changes of temperature—especially the heat of the fire or the warmth of the bed—mental emotions, etc. In consequence of heat increasing much the local symptoms, the itching is always remarkably aggravated at night, rest is thus completely destroyed, sleep being rendered impossible, hour after hour is passed tearing the skin, and the sufferer is often compelled to seek relief by lying on the floor without any covering. In one case of extreme severity which I attended, the exacerbations and remissions assumed a well-marked, intermittent, semi-quotidian type; the itching commenced every afternoon at about two o'clock, and continued until six o'clock, when it generally abated, and there was comparative ease until the same hour on the following morning; it then returned, and lasted again for the same length of time; but the night sufferings were tenfold more severe than those of the day; this intermittent character of the pruritus had lasted, at the time I saw the patient, a young man of twenty-three years of age, for more than two years, and his health, both mental and bodily, was sensibly affected from the constant suffering and loss of sleep.

When the disease has lasted for any time, the cutaneous surface is torn and fissured from the constant

scratching; if papulæ existed, their site is marked by minute, blackish crusts or small excoriations, and the skin is thickened, uneven and coarse, being found, on close examination, as remarked by Wilson, "raised into small flat elevations, caused by the swelling of the little angular compartments between the linear markings." The natural color of the skin is also much altered, its aspect being of a dirty brownish-yellow hue.

The milder form of *prurigo vulgaris* seldom lasts for a longer period than two or three weeks, but the duration of the severe variety is in some cases almost indefinitely prolonged, recovery rarely taking place in a shorter time than from four to six months. The papulæ in both are developed, in the first instance, on the chest, the neck, the lumbar region, the shoulder, and the outside of the thighs, from whence, when the disease lasts for more than a month or two, they spread to the arms and legs, but do not appear on the face, the scalp, or the hands, although these parts, in aggravated cases, are rarely free from more or less pruritus. Such of the papulæ as escape being torn by the nails terminate in slight furfuraceous desquamation. The disease is not unfrequently complicated by the simultaneous occurrence of scabies and eczema, and in some cases, of ecthyma.

Prurigo senilis (Plate IX, Fig. 6) occurs, as its specific name indicates, only in advanced life; the pruritus, which is usually of remarkable intensity, is attended always with an eruption of papulæ; these are of larger size than in either of the forms of *prurigo vulgaris*, but they are fewer in number, more dispersed over the surface of the body, and of a dull dingy-yellow color; soon torn with the nails, small blackish crusts appear on their apices, which also constantly bleed slightly when irritated. The chief peculiarity, however, in *prurigo senilis* is, that it is almost invariably attended with the appearance of innumerable pediculi on the integuments of every part of the body—a complication never absent in the poor, and in persons of filthy habits. Their presence aggravates much the other symptoms of the disease: the skin becomes of a livid color, thickened, rough, with a leathery aspect, and covered with superficial excoriations, and

small pustules and indolent boils form in different regions of the body; the pediculi are renewed nearly as quickly as they can be removed from the surface, which has caused a controversy as to whether they are developed from the integuments or not. By some dermatologists the occurrence of the pediculi is considered as only an accidental circumstance, and not constituting a symptom of the disease; by others it is regarded, more correctly I think, as an essential feature of the eruption, and they have, therefore, following Alibert, denominated the form thus characterized, prurigo *pedicularis*.

Many of the French schools describe, as a distinct disease of the skin, this development of pediculi on the cutaneous surface of the body, generally terming it *Phthiriasis*, and dividing it into three species, as it may be general or partial—*Phthiriasis corporis*, *Phthiriasis capitis*, and *Phthiriasis pubis*—considering the simultaneous appearance of the papulæ of prurigo as only a complication; but as I have almost invariably seen them occur together in old persons, I think it more correct to describe this singular affection as a variety of prurigo *senilis*. The pediculus in these cases has been called *Phthirius*, or *Pediculus pubis*.

Prurigo vulgaris very frequently affects some special region of the skin from which it does not spread, but becoming chronic there causes extreme suffering, and is very obstinate. It thus attacks the scrotum in males, and the pudendal region in females: the former, termed prurigo *scroti*, is a very troublesome affection, being attended with a constant itching, which, instead of being relieved, is much aggravated by scratching with the nails, yet the sufferer from it cannot resist the almost unceasing inclination which exists to attempt thus to alleviate the tormenting pruritus; the habit thence acquired can scarcely be got rid of, and even long after all apparent symptoms of the disease have disappeared, the integuments are continually fretted and torn. In females, prurigo *pulendi* is situated chiefly on the mucous membrane of the labia, but often extends to the entire surface, both cutaneous and mucous, of this disease; it is a most distressing and obstinate disease, and not uncommonly

produces symptoms analogous to those of nymphomania. Another frequent form of local prurigo is prurigo *podicis*; in it a constant itching of the verge of the anus exists; and papulæ, which are often not present in the other local forms of the disease, are here almost invariably developed, and sometimes attain a considerable magnitude; occasional intermissions of the pruritus occur; but the least irritation, augmented heat of the surface, or derangement of the digestive organs, causes an exacerbated return of this tormenting sensation. Other regions of the skin are at times the seat of severe itching, and have been described, but without sufficient reason, as being then affected with prurigo; thus dermatologists have spoken of prurigo *urethralis*, prurigo *præputialis*, prurigo *pubis*, and prurigo *palmaris*; the latter has been specially mentioned by Alibert as affecting the soles of the feet, of which he states that he witnessed many examples.

Causes.—Prurigo may occur at any age, but is most frequently seen in old persons, and more commonly in males than females: young persons are more liable to its attacks than adults, and it has been witnessed even in early infancy. That state of the constitution in which cutaneous irritability exists, as exhibited by the occurrence of troublesome ulcers from slight causes, and an inaptitude, so to say, of even the most trifling abrasion to heal, peculiarly predisposes to its development; there is usually in such a condition an impoverished blood circulating in the vessels, and a highly irritable nervous system. Bad or insufficient diet, want of care as to cleanliness, unhealthy habitations, sedentary occupations, or confinement to the house caused by ill-health, defective clothing, dissipated habits, &c., are both predisposing and exciting causes of prurigo. I have often thought that in gaols and workhouses, amongst the aged inhabitants of which the disease is so common, and also amongst the poor, it may be caused by the *sameness* of food, which, too often, is defective in nutritive qualities. Other cutaneous eruptions which are attended with local irritation, more especially scabies and lichen, not uncommonly are exciting causes of this affection; and it is in

old persons a frequent accompaniment of convalescence from debilitating diseases, particularly fever, dysentery, and chronic diarrhœa.

Diagnosis.—The most characteristic symptoms of prurigo are the intense pruritus, the blackish crusts which are produced on the papulæ, and the alteration that takes place in the appearance of the integuments. The diseases with which it is most likely to be confounded are lichen and scabies, and the mode of diagnosing it from them has been already noticed when describing these eruptions, but, as has been before remarked, they often coexist.

Prognosis.—Prurigo, when it becomes chronic, is one of the most obstinate diseases of the skin; in old persons seldom yielding to any treatment. Although prurigo vulgaris cannot be said to be attended with danger to life, yet it renders life miserable, sometimes for years, and from being a constant cause of irritation, may, to a certain extent, affect the mind, as is witnessed in some cases. The senile form of prurigo, although it is not in itself a mortal affection, nevertheless seldom disappears unless with life, and when it occurs as a complication of some organic or chronic disease, unquestionably hastens the fatal termination.

As regards the *pathology* of prurigo, it is evidently chiefly a hyperæsthesia of the cutaneous structure; the changes in the state of skin which attend it being usually produced by the local irritation thereby occasioned.

Romberg is of a like opinion; Bärensprung thinks it is primarily an affection of the papillæ, and looks on the pruritus as secondary. Fox considers it to result from an unhealthy state of skin, not a pure neurose; and that the papules are determined in their formation by the local irritation; "the effusion of blood upon their apices being a sufficient evidence of the badly nourished derma." Hillier believes *P. senilis* to be caused by the pediculus. Gout, rheumatism, and albuminuria are said, by various writers, to cause prurigo; and, in common with some physicians, the Editor has observed a modified form of it to be generally associated with jaundice, presumptively from the circulation of bile in the blood.

Treatment.—If Dr. Neligan's view of the pathology

of the disease is correct, it is manifest constitutional remedies are most to be relied upon in its treatment; nevertheless, as in other nervous affections, topical medication should not be neglected, and is often attended with the best results. The state of the general health should in all cases first receive attention, for, until this is regulated as far as practicable, the employment of remedies more immediately directed to the disease will be found useless. With this view mild mercurial and saline purgatives may be prescribed to correct the secretions from the digestive organs; and when there is a deficiency of bile in the discharges, as is not unfrequently the case in adults and old persons, dried carbonate of soda and extract of taraxacum should be combined with the mercurials. In females the association of the disease with derangement of the menstrual function is often witnessed; and when such exists there is generally an anemic state of the system requiring the use of preparations of iron, but they should never be prescribed except in combination with sedatives, as otherwise the stimulant action is apt to augment the pruritus; the same observation applies to the employment of chalybeates in the old and debilitated, for whom they are also generally indicated in prurigo. They may be advantageously combined, as in the following form:—

- R. *Misturæ Ferri compositæ*, . . . *uncias octo.*
Infusi Lupuli, *uncias tres cum semisse.*
Succi Conii, *semi-unciam. Misce.*
Sumat semi-unciam fluidam sextis horis.

Or Dover's powder may be given in rather larger doses at night, preparations of iron being administered during the day. In very young persons antiphlogistics are sometimes needed as preludes to other remedies, but in no case should the strength be much weakened, as then the disease is more apt to become chronic. When prurigo has lasted for any time, or has resisted other plans of treatment, more active medicines of the class which especially influences the nervous system should be prescribed: *nux vomica*, or its alkaloid, and tincture of aconite, thus often prove useful; the former has succeeded in my hands

when all other remedies seemed to fail; it may be given in the following form, a combination which will be found to promote a healthy condition of the digestive organs, and to correct the loss of tone which they exhibit usually in this disease:—

- R. Extracti Nucis Vomicae, . . . grana tres.
 Fellis Bovini Purificati, . . . grana sex.
 Extracti Taraxaci, grana viginti et quatuor.
 Pulveris Myrrhæ, grana octodecim.
 Misce et divide in pilulas viginti quatuor.
 Sumat unam ter indies.

The tincture of aconite should be given in the ordinary doses, from five to eight minims of the Dublin preparation,¹ or half that quantity of Fleming's tincture, and its effects carefully watched. I have also administered the *succus conii*, in doses of a drachm three times a day, in an ounce of the camphor mixture with magnesia, with excellent effect in some obstinate cases of senile prurigo. Preparations of sulphur are recommended by many in the treatment of this disease, and in the very chronic forms the sulphurous mineral waters, as those of Lucan, of Harrogate, of the Pyrenees, &c., prove of unquestionable benefit. Indeed, in all cases change of air, if possible, to the original sources of mineral waters—the saline in the early stages, the chalybeate in the more advanced, and the sulphurous when the disease is very chronic and obstinate—so that they may be drunk there, is highly advisable.

Mr. Milton recommends the administration of from $\frac{1}{80}$ th to $\frac{1}{4}$ th of a grain of strychnia every three hours until a decided effect is produced, or until nervous symptoms show themselves; he then follows up the treatment just mentioned with the administration of arsenic.

The local treatment is now to be spoken of: and at first nothing is requisite further than the daily use of the *hot* fresh-water bath, to which, if the itching is extreme,

¹ The tincture of aconite of the *British Pharmacopæia* is only half the strength of the above; so that a proportionately larger dose of it should be given. Professor Macnamara, however, gives the dose of the *Br. Ph.* tincture as 5 minims "cautiously increased" to 10.—*Neligan's Medicines*, Sixth Edition, by Macnamara.

gelatine should be added, or alkaline baths may be employed, if the eruption is well developed on the skin; as the disease advances and becomes chronic, sulphuro-alkaline baths—three ounces of sulphuret of potassium and an ounce of carbonate of potash to thirty gallons of hot water—will be used with benefit; and in senile prurigo, especially that form in which pediculi cover the body, the surface should be smeared, half an hour before going into the bath, with mercurial ointment diluted with three parts of prepared lard, and a drachm of glycerine added to each ounce. To allay the pruritus various lotions and ointments have been recommended; of the former, those containing the vegetable acids, such as lemon-juice, vinegar, and cherry laurel-water, are especially useful; black-wash has also proved very serviceable when the disease is local; and lotions, containing corrosive sublimate, muriate of ammonia, watery extract of opium, hydrocyanic acid, preparations of lead or of sulphur, may be tried when other applications fail. From the use of chloroform in the form of ointment, as recommended in the Chapter on Urticaria, I have derived most excellent results; in fact, latterly I have seldom had occasion to employ any other application; but the substances mentioned above, as being used in lotions or washes, may also be applied as unguents, and the addition of glycerine will generally be found of advantage. In very obstinate cases the chloroform may be combined with iodide of lead, as follows:—

R.	Iodidi Plumbi,	. . .	grana duodecim.
	Unguenti Simplicis,	. . .	unciam.
	Chloroformi,	. . .	minima octo, ad minima duodecim.
	Glycerini,	. . .	drachmam. Misce.

Mr. Milton recommends the Turkish or Roman bath; and so does Mr. Wilson, who advises the use of juniper tar soap. Dr. Frazer recommends a preparation composed of finely powdered camphor, with six or eight parts of rice or potato starch, and a small quantity of acetate or carbonate of lead, to be dusted on the surface three or four times daily, at the same time using calomel ointment. Hebra uses cod-liver oil externally and internally; Malm-

sten also advises the internal use of this oil. Bärensprung advises cold baths, ablutions, and applications, with a corrosive sublimate bath at 95° Fahr. every second day. —*Dub. Quar. Jour.*, May, 1860, p. 492. In cases of prurigo senilis the Editor generally finds a soft-soap hot-water bath, with the subsequent application of a diluted citrine ointment (one part to three of lard) to be very useful. These baths should be taken at night, thrice a week, and the ointment washed off in the morning. When greasy applications are used alkaline tepid baths should be employed daily to cleanse the skin, the patient remaining in the water for at least twenty minutes.

Strict attention to diet and regimen is requisite in all cases; stimulant food or drink being especially avoided.

Dr. J. C. Warren, Boston, Mass. 1860.
For Prurigo Senilis. The above treatment is recommended.
Dr. J. C. Warren, Boston, Mass. 1860.

CHAPTER VI.

SQUAMÆ.—(See Plate X.)

THERE is no class of diseases of the skin so well characterized by the apparent phenomena as that in which the formation of a scale (*Squama*) constitutes the essential feature; epidermic desquamation, as has been in the previous pages so frequently noticed, is present in many cutaneous eruptions, but that differs in many respects from the secretion and subsequent shedding of true scales, which consist, according to the admirable definition of Willan, of “a lamina of morbid cuticle, hard, thickened, whitish, and opaque.” Although in some of the forms more or less change from the primitive characters of the eruption takes place in the progress of the disease, it is never such as to mask their scaly nature, and the diagnosis is consequently attended with less difficulty than that of most other cutaneous affections. Squamous eruptions may be defined to consist in the secretion of dry, laminated, whitish scales on the cutaneous surface, usually occurring in patches, often of a circular form, but sometimes generally diffused, and covering an extended portion of the integuments. The scales, which are somewhat elevated above the level of the surrounding skin, readily fall off, to be again rapidly renewed, and the portions of the cutaneous surface on which they are formed are of a smooth, glistening aspect, reddish and dry.

Scaly diseases are essentially of a chronic, non-inflammatory nature, are slowly developed, and are not propagated by contagion. They may appear on any part of the body, but they chiefly affect, at least in the first instance, the extremities, whence they usually spread to other regions, being rarely confined to a single locality, with the exception of pityriasis, which occasionally occurs

on some special portion of the skin. They are developed also at all seasons of the year, and are not apt, like other cutaneous diseases influenced by the atmospheric temperature, to disappear and again reappear at certain times.

The eruptions included in the order Squamæ are divided by Willan into four groups—Lepra, Psoriasis, Pityriasis, and Ichthyosis—and this arrangement has been followed by many modern dermatologists; recently, however, it has been very generally admitted that Ichthyosis was incorrectly classed by him amongst scaly diseases, and doubt has been thrown on the propriety of describing psoriasis and lepra as different forms, they being, moreover, evidently regarded by the ancient medical writers as constituting merely varieties of the same eruption. Of foreign authorities it may be observed that Hardy, Bazin, and Duchesne, among the French, and Fuchs, Riecke, Hebra, and Simon, among the German writers, look on them as identical. Mr. Wilson, in the last edition of his work, has applied the term psoriasis to the chronic stages of eczema; and he uses the term Lepra, or *Alphos*, which he prefers, to designate what is called psoriasis by most other writers. Fox, along with Wilson, looks on the Lepra and Psoriasis of Willan as identical in nature. Ichthyosis cannot, with any regard to accuracy in classification, be grouped in this class, for it is not attended with a separation—throwing off of scales, or desquamation, one of the most characteristic signs of this order of cutaneous eruptions; the epidermis is in it truly hypertrophied, and I shall therefore describe it as constituting one of that group of skin diseases which I have termed Hypertrophix. To even a superficial observer it must be evident that psoriasis and lepra have no essential differences, and they require a precisely similar plan of treatment; regarding them, therefore, as distinct affections could only tend to complicate their study. The number of scaly diseases of the skin is thus reduced to two—Psoriasis, Pityriasis.

PSORIASIS.

Psoriasis, or Lepra; from ψώρα (which is from the Hebrew, Tsorat); or more correctly, according to Liddell and Scott's Lexicon, from ψάω or ψωω to touch; λέπρα, of the Greeks; Vitiligo, of Celsus; Lepre, of the French, Der Aussatz, of the Germans; Sahafati, of the Arabian writers; Sappachath of the Levitical Code (Lev. xiii, 2).—See Plate X.

PSORIASIS (*Dry tetter; Dry scale*)—under which term it will be understood I include Lepra—is characterized by consisting in the formation on the cutaneous surface, and subsequent desquamation, of true scales, the scales being of tolerable consistence, dry and friable, of a silvery or grayish whiteness, and separating in laminæ of about the size and consistence of particles of bran. The eruption appears in small, round, or irregularly-shaped spots, distinct from each other, scattered over the cutaneous surface in large, circular patches, depressed in the centre, or in masses so closely aggregated and confluent as to envelop an extended portion of the skin in one vast coating of scales in consistent layers. The surface of the integument on which they are situated is raised, reddish, and apparently inflamed, but unattended with any discharge; nevertheless, when the eruption has been of long duration, fissures and cracks through the deeper-seated tissues form, from which an ichorous, bloody secretion exudes. Psoriasis has been considered by many writers on diseases of the skin to be a special chronic inflammation of the cutaneous structures, the speciality consisting in the development of scales; it cannot, however, I think, be regarded as an inflammatory disease, for it is not attended with heat or other local sign or symptom of inflammation, except a slight degree of itching, unless when the affected surface is irritated by some cause.

With regard to the nature of the disease, Dr. Fox observes, on the authority of Hebra, Simon, and Rokitsanski, that it is "the presence of an hyperæmic state of derma, connected specially with an excessive formation of epidermic scales; a morbid hypertrophy. The true derma appears not to be affected, except in long-standing

cases, and then only as a secondary result of the long-continued congestion. The patches are made up of epidermic cells, imperfectly, because quickly formed—collected together; the papillary layer of the skin seems, however, to play the part most active in this change.”—*Op. cit.*, p. 157. Dr. Wertheim, of Vienna, thinks it is due to the circulation of vegetable parasitic elements in the blood current; and he ascribes its greater frequency in *men* (?) to their habit of drinking more alcohol than women. Dr. Wertheim's observations, which appeared in the *Gaz. Heb. de Méd. et Chir.*, 1864, and are noted in the *Med. Times and Gaz.*, 24th July, 1864, are discussed at length by Dr. Fox, who thinks “such a theory cannot be maintained for a moment.”—*Op. cit.*, p. 159.

The eruption appears in the form of minute, slightly-elevated papulæ, with a small scale apparent at the apex of each on careful examination; and, no matter what phenomena it may afterwards present, this is its primary aspect; coming on slowly, it runs generally a most tedious course, often lasting for many years, and sometimes even for a long life. The several varieties of both psoriasis and lepra which have been described may be conveniently reduced to three:—

Psoriasis guttata.

“ aggregata.

“ lepræformis.

Psoriasis guttata (Plate X, Fig. 1).—This, which is the mildest form of the disease, is unattended in any of its stages with constitutional symptoms; a slight degree of itching of the skin occasionally precedes its appearance, but even this is not a constant sign. Numerous minute, papular elevations of the epidermis, at first not exceeding in size the point of a pin, are developed on the cutaneous surface, scattered irregularly, but distinct from each other, except in the neighborhood of the joints, on the prominences of which they are usually more or less aggregated. On the apex of each little elevation a minute scale forms, which, at first slightly adherent, desquamates shortly after its appearance, to be succeeded by another somewhat larger and more

consistent; this scale is shining, of a silvery whiteness, and about the thickness of thin writing paper. The raised spots on which the scales are situated enlarge slowly, not attaining the size of the head of a pin for several days, and very gradually acquiring a magnitude of from two to three lines in diameter, when they are of a somewhat circular shape, but irregularly circumscribed. In some parts two or more spots coalesce, and thus form small patches; rarely, however, in this form of the eruption, exceeding the size of a sixpence, except, as above remarked, near the joints, where they occasionally occupy a portion of the integument an inch or two in diameter. With the progress of the disease the scales continue to be continuously developed, and shed as rapidly as they are secreted; the affected spots are irregularly elevated, of a reddish color in young persons, but of a dull brownish hue in the old, contrasting well with the shining, grayish-white scales, and present an irritated aspect. The only annoyance accompanying the presence of the eruption on the body, the disfigurement it occasions excepted, is a slight degree of tingling scarcely amounting to itching, caused by the separation and shedding of the scales. The variety here designated as *Psoriasis guttata* is the *Psoriasis punctata* of Devergie and Hebra.

This form of psoriasis rarely becomes chronic; in three or four weeks after its first appearance the scaly desquamation begins to diminish in quantity, new spots, which continued to be developed on the sound skin amongst those which had previously existed, cease to form, the elevated patches gradually sink to the level of the surrounding integument, and the disease usually terminates in from six weeks to two months, faint reddish stains, which after a short time fade away, marking the site of the eruption. It may occur on any part of the body, but is most usually situated on the chest, the back, the arms, the face, and the scalp.

In some rare cases, as originally noticed by Willan, the eruption is developed in the form of narrow patches or stripes, consisting of the minute scaly elevations set closer to each other than usual. These stripes or bands

which generally appear on the trunk of the body, assume a singular shape: "some of them are nearly longitudinal, some circular or semi-circular, with vermiciform appendages: some are tortuous or serpentine, others are shaped like earth-worms or leeches; the furrows of the cuticle, being deeper than usual, make the resemblance more striking by giving to them an annulated appearance."¹ This, which is manifestly only an accidental variety of psoriasis guttata, has, from its peculiar aspect, been named *psoriasis gyrata*.

Psoriasis aggregata (Plate X, Fig. 2).—I have ventured to change the specific appellation of this form of the eruption, which by Willan and his followers has been denominated *diffusa*, by Rayer *confluens*, and by many other dermatologists *vulgaris*. The latter term indicates correctly enough that it is the most common form of the disease, but does not afford any information as to its characteristics, while the first is not sufficiently specific, psoriasis guttata and psoriasis lepræformis being often as generally diffused with regard to locality over the cutaneous surface; the name applied by Rayer is objectionable, solely because, in the English language, the word "confluent" conveys the idea of the presence of fluid. Reluctant, then, as I am to alter the nomenclature of skin diseases, although anxious to reduce in number the terms used, I have thought it well in this instance to do so by employing a specific denomination, which, while being frequently employed to designate other diseases of the cutaneous structure, and thus, not being an innovation, would be both more correct and more expressive.

This form of psoriasis, developed like that last described, without constitutional disturbance, appears as numerous minute rounded elevations of the epidermis, closely aggregated together in irregularly circumscribed patches, varying in size from that of a silver fourpence to that of the palm of the hand, but very irregular, both as regards shape and extent; on these the scales are formed from the first, minute and tolerably adherent at

¹ Willan *On Cutaneous Diseases*. London: 1808, 4to., p. 161.

commencement of the disease, but gradually acquiring a greater magnitude, when they are shed and again secreted with astonishing rapidity. The scales are of the same color and consistence as in psoriasis guttata, but desquamate in rather larger pieces; their reproduction, too, takes place much more quickly, so that they are consequently desquamated in greater quantity. With the progress of the eruption, new patches form on the intervening sound skin, which, sometimes, coalescing with those that first appeared, increase their size often considerably; the diseased surface is now distinctly raised above the level of the surrounding integument, rather more so at the outer border than in the centre, of a dull, reddish color, and covered with shining grayish-white scales. There is no discharge, either serous or purulent, but fissures or cracks are generally found through the affected parts, which present an irritated aspect, and through which the blood occasionally exudes.

This form of the disease often does not attain its full development for many months, although several of the patches acquire their utmost magnitude in three or four weeks, after which time they do not increase in size, but continue to secrete the characteristic scales incessantly. Its duration is essentially chronic, lasting usually for years if not submitted to the employment of remedial measures. The disappearance of the eruption is in all cases slow and gradual, the first sign of amendment being the cessation of the development of new patches, a diminution of the scaly desquamation, and a sinking of the elevated surface to the level of the healthy integument; reddish stains remain for a considerable time on the surface, even after the disease is apparently cured, and from these a fine epidermic desquamation, though small in quantity, continues for some weeks.

Either of the forms of psoriasis now described, when they become very chronic, may assume an extremely aggravated character, and present local phenomena justly entitling them to the appellation which dermatologists then usually apply to designate their severity and obstinacy to treatment—psoriasis *inveterata*.—See Plate X,

Fig. 3. In it the various patches of the eruption coalesce, so as to cover completely the limb on which they may be situated, or even the trunk of the body; the entire of the cutaneous surface is one mass of dry, hardened, thick scales, or rather is enveloped in a case of them, which covers the integuments like a coat of mail. Through this deep fissures are formed, generally in straight lines, but sometimes following the course of the polygonal and lozenge-shaped linear furrows of the epidermis, so as to give the diseased surface a striking resemblance to a piece of tessellated pavement. From the fissures an ichorous and bloody pus exudes, the parts are constantly torn with the nails—itching, which is much aggravated by heat, being a constant accompaniment of this inveterate form—and the entire of the affected region is a mass of leprous irritation, attended with a foul discharge, and a shower of desquamating scales flies off on the least motion, the bed of the patient presenting an appearance as if bran had been thickly strewn in it.¹

The most usual site of psoriasis aggregata is the extremities; but it at times affects the entire body, being least frequent on the face, where it is always less general than on other parts of the cutaneous surface. In some cases it appears on special regions of the skin, and under such circumstances has been particularly described, but the guttated form of the eruption is almost invariably present on the rest of the body at the same time. The local forms have been named, from the parts affected, psoriasis *labialis*, psoriasis *palpebrarum*, psoriasis *capitis* (Plate X, Fig. 6), psoriasis *scrotalis*, psoriasis *præputialis*, psoriasis *pruden-*
dalis, psoriasis *palmaris*, and psoriasis *unguium*; of these the two last only require to be specially noticed.

Psoriasis *palmaris* has, in common with certain forms of lichen and eczema, been regarded as one of the varieties of the so-called bakers' and grocers' itch; it may appear on the palmar aspect of the hands, extending also to the wrists and the under-surface of the fingers. In its de-

¹ In Dr. Neligan's Atlas (Plate X, Fig. 4) is a very good illustration of Psoriasis inveterata presenting the *tessellated pavement* appearance, from a case under the care of Dr. Banks, in the Whitworth Hospital.

velopment it is attended with more local symptoms than any other variety of the disease, inflammatory redness, accompanied by heat and itching, marking its advent; the skin on the palm of the hand then becomes swollen, irregularly elevated, and of a reddish hue, and the itching generally increases much, being at times as intense as in scabies or prurigo. Large, dry, whitish scales of tolerable thickness and consistency, are rapidly secreted on the affected surface; these soon desquamate, and are reformed again and again, as in the other varieties of the eruption. When it becomes chronic, the itching and heat diminish, but the integuments of the palm of the hand and of the palmar surface of the fingers become hardened, thick like leather, of a whitish-yellow color, corrugated, scaly, and fissured; the motions are then limited and painful, the fingers cannot be completely flexed or extended, and any sudden movement tears the fissured parts, and causes them to bleed. In a rare form described by Rayer, and termed by him *psoriasis palmaris centrifuga*, the eruption begins by the formation of a small, rounded, squamous elevation in the centre of the palm, around it a series of eccentric, raised, red circles are developed, from each of which epidermic desquamation takes place; the eruption spreads in this manner until it covers the entire palmar aspect of the hands, which is then deeply fissured and painful, and bleeds from the slightest cause. Psoriasis attacks the backs of the hands also in some instances, and occasionally the soles of the feet.

The eruption extends to the nails in most cases of chronic psoriasis of the hands; but what has been described as *psoriasis unguium* is a change from their healthy condition, with or without the existence of the disease, on remote parts of the body; one or more of the nails presents a brownish-yellow, scaly elevation near its root, which gradually extends so as to occupy the entire surface; its texture becomes brittle, breaking and scaling off constantly; it acquires a dirty-yellowish hue, and not uncommonly the entire nail is shed, to be succeeded by the growth of another equally diseased.

Psoriasis lepræformis (Plate X, Fig. 5), which, as al-

readily remarked, is the form of scaly eruption described by most dermatologists as a distinct disease, and termed by them "*Lepra*," is chiefly characterized by the development of the patches in usually a perfectly circular, but sometimes in an ovoid shape. It commences without either constitutional or local disturbance, in the form of numerous small, round, reddish stains, perfectly distinct from each other, and scarcely elevated above the surrounding skin, on which shining silvery-white scales soon appear. Gradually, but slowly, the circles enlarge from their circumference, which is somewhat more raised than the centre, attaining a size varying from a few lines to one or two inches in diameter; some of the patches coalescing, they occasionally cover an extended surface of the integument, and acquire an irregularly rounded shape—this is almost invariably the case on the convex aspect of the joints and in their neighborhood, on which parts the eruption presents an appearance scarcely to be distinguished from *psoriasis aggregata*; but the circumference of the patches, no matter how large they may be, is always more elevated than the centre, which, after some time, assumes a comparatively healthy condition, its color becoming more natural, and but slight desquamation of fine epidermic scales taking place from it. From the borders, however, the constant secretion and shedding of true scales continues; they become thicker and more solid, retaining their whitish aspect, and are sometimes imbricated on each other at the outer border of each patch; the integument on which the eruption is situated also becomes somewhat hypertrophied.

Psoriasis lepræformis always runs a very chronic course, not exhibiting any tendency of itself to disappear, the disease being kept up more by the desquamation of scales from the patches of eruption originally formed than by the development of new spots; at length, when under treatment it begins to mend, the central healthy surface extends towards the circumference, upon which fewer and thinner scales are secreted; the eruption at the same time ceases altogether to spread, and, finally, only slight strains with furfuraceous epidermic desquamation remain, as an indication of the parts which were affected:

these in most cases gradually wear away, but they sometimes last for years, and scales form on them in spring and summer, or on the least exacerbation, either from local causes or from irregularities of diet, relapses thus frequently occurring.

A variety of this form of the eruption has been described under the name of *Lepra nigricans*, in which the color of the diseased patches is dusky-brown or livid, and the scales are very thin, soft, and of a dull grayish-white aspect; in all other respects it resembles psoriasis lepræformis, and its peculiarities evidently depend on the eruption affecting old persons or those with a broken-down constitution, in whom only it is witnessed. The *Lepra alphoides* of Willan is a variety of psoriasis guttata, in which the spots are somewhat larger, and the scales more silvery-white than usual.

The leproid form of psoriasis chiefly affects the extremities, yet it sometimes attacks the face and scalp, and the trunk of the body: I have seen it occur very extensively on the scalp, where the patches coalesce and envelop the entire of the head in one vast crust of scales, being, however, present at the same time on other regions of the body; on the face it is almost invariably in rather small patches distinct from each other, but most numerous on the forehead and the upper parts of the cheeks just beneath the eyes. The spots of this form of the eruption not unfrequently assume a somewhat symmetrical arrangement on the two halves of the body, appearing on the corresponding portions of the cutaneous surface at each side of the mesial line simultaneously, and in patches of nearly similar shape and size; the same fact is also witnessed at times in the other varieties of psoriasis, but it is of more frequent occurrence in this form of the disease.

The psoriasis *annulata* of some dermatologists, the *orbicularis* of others, corresponds in all respects with psoriasis lepræformis; and the variety termed *infantis* presents no peculiarity, except its occurrence at a very early age, when, in consequence of the fineness of the skin, the surface is more easily irritated, and the local symptoms are, therefore, more prominent. In all the forms of the eruption these, as has been remarked, are in general

very trifling, but when any do exist they are much aggravated by warmth, such as that caused by the heat of the bed.

Dr. McCall Anderson has described a variety which he calls *Psoriasis rupioides*. He regards it as a stage intervening between the so-called *P. guttata* and *P. nummularis*. "In it (he observes) the accumulation of epidermis takes place to an unusual extent, so that on many of the patches it assumes the shape of large conical crusts marked by concentric rings. In fact they exactly resemble in shape limpet shells, and from their likeness to crusts of rupia I have called this variety *Psoriasis rupioides*. Except in the shape of the crusts, however, there is no connection whatever with rupia; and on removing a crust there is no ulceration beneath, but a slightly elevated, dusky-red, rounded surface is exposed to view, which sometimes bleeds a very little."—*Psoriasis and Lepra*, p. 4. London, 1865.

The chief annoyance which psoriasis causes is the disfigurement it occasions when situated over any of the ordinarily exposed regions of the body; but if the eruption has existed for any length of time, and become chronic, the health may be more or less affected from the obstruction to free cutaneous transpiration which it must produce; and thus, should any acute febrile disease attack a person affected with the eruption, the danger arising from the former may be increased, and the treatment rendered more difficult. It is probably due to this cause, also, that diuresis and diarrhoea are such frequent accompaniments of scaly diseases of the skin; the latter complication is often very uncontrollable, and the appearance of the stools at times is such as to warrant the belief that it is caused by an epithelial desquamation from the mucous membrane of the intestinal canal, analogous to the shedding of altered epidermic scales from the cutaneous surface.

Causes.—Psoriasis occurs at all ages and in both sexes, being probably equally frequent in males and females. Hillier gives statistics to show that it most frequently occurs between the ages of 15 and 35; for out of 67 cases of his, more than half occurred within these limits. Its special causation is, like that of all cutaneous erup-

tions, enveloped in much obscurity. That it is sometimes produced by the action of certain irritating matters on the skin cannot be doubted; yet we see the same local forms of psoriasis arise in persons who, from their occupation or position in life, are not exposed to the causes which produce it in bakers, washerwomen, shoemakers, and individuals of other trades. That squamous diseases are sometimes hereditary is also true, but their hereditary nature is of a singular character; thus, so far as my own experience would lead me to infer, the disease does not descend directly from parent to child with the same regularity as other hereditary diseases, but the predisposition frequently appears to be derived from an uncle or aunt, whose own children may be free from the disease; and it also seems not uncommonly to lie dormant in a family for a generation, and again reappear. In a case which I not long since attended, one son of a family was affected from his childhood with psoriasis of an inveterate form; none of his brothers or sisters had any cutaneous eruptions, nor had his parents or grandparents, but a paternal uncle was affected with a similar disease, and also a first cousin, not the child of this uncle; it was, moreover, stated that a granduncle was a sufferer for years from a cutaneous eruption. A somewhat similar hereditary transmission of the disease has fallen under my notice in several instances, namely, that while the immediate descendants have escaped, one or more members of collateral branches have been affected. The true hereditary nature of psoriasis may therefore be doubted, and the cases which occur, and are adduced as proofs of it, might be accounted for in the same manner as those in which no such origin can be traced, and which are usually stated to depend on some constitutional peculiarity, not better understood now than in the days of Willan, who described it as characterized by "a slow pulse, or a languid circulation of the blood, and, what must be generally connected with it, a harsh, dry, impermeable state of the skin and cuticle." The latter part of this observation has been adopted by Mr. Erasmus Wilson, who says that "the disease appears for the most part in those who are remarkable for a dryness of the skin." Yet I cannot help

thinking that this is confounding the effect with the cause, and that it would be rather hazardous to predicate the likelihood of psoriasis occurring in an individual because his skin was unusually dry or harsh. The other causes, ordinarily enumerated by dermatologists as being likely to produce psoriasis, are similar to those supposed to excite other diseases of the skin, such as irregularities of diet, insufficiency of food, the use of salted or highly-seasoned provisions, derangements of the digestive organs, and, in the female, deficient or excessive menstruation; but none of these can be supposed to act unless when original predisposition to the disease exists. Hebra carefully investigated many of these presumed causes, particularly noting air, diet, the seasons, various diathetic states, want of cleanliness, and various occupations. He concludes, however, that none of these conditions act as causes. Wilson believes the cause of it to be a special poison, the nature of which is obscure; but he is satisfied it is essentially and originally *sypilitic*. Fox is of a like opinion.

Diagnosis.—The distinction between psoriasis and all other diseases of the skin, except pityriasis, is well marked by the presence of the characteristic scales; several other eruptions are, as has been remarked when speaking of them, accompanied by a form of desquamation, but this is present in only certain of their stages, and the desquamation consists merely of the shedding of slightly altered epidermis, in minute, very thin, furfureaceous particles, not to be confounded with a true scale; this takes place especially in chronic eczema, in herpes, and in lichen, but in the two former there is more or less serous or sero-purulent discharge attendant on some part of their course, and in the latter papulæ are to be distinguished on careful examination. When either of the two latter diseases assumes a circular form, as in herpes circinatus or lichen circumscriptus, it is more apt to be confounded with psoriasis lepræformis, but the characteristics just noticed then serve also to aid the diagnosis, and the eruption in neither of them presents the distinctly rounded shape with the depressed centre and scaly circumference of this variety of the disease. Psoriasis very

rarely occurs on the scalp, unless when the eruption is present at the same time on some other part of the body; and this serves, to a certain extent, to distinguish it from other scalp affections; the scales, too, when they are secreted on this region, are thicker and more solid than when situated elsewhere on the cutaneous surface, and consequently much more so than those of any other eruption that may occur there, than which they are also more persistent, often constituting a firm, imbricated, adherent, dry crust, the outer layer of which only desquamates. Secondary syphilitic eruptions not unfrequently assume a scaly character, and are with difficulty diagnosed from the ordinary forms of psoriasis: the history of the case and the concomitant symptoms are the differential points to be chiefly depended on; the color of the parts of the cutaneous surface which are affected is, moreover, of a dull coppery or livid hue.

From pityriasis the eruption is distinguished by the absence in that affection of elevation of the diseased parts, which are of a yellowish or reddish-yellow color, by the scales being fine and thin, and by their being generally diffused over the cutaneous surface, not in distinct patches or spots. The chief diagnostic marks between it and ichthyosis are the thick, hardened, and rugose condition of the skin in the latter, and the non-existence of any scaly desquamation. The aggregated form of psoriasis is distinguished from the guttated variety without any difficulty, but in some cases a distinction can scarcely be made between it and psoriasis lepræformis, a matter of but little import, as the treatment for both is in all respects similar.

Prognosis.—Squamous eruptions are essentially of a chronic nature; but even when of years' duration, scarcely ever affect in any respect the general health. Developed under the influence of a peculiar constitutional state of the skin, essentially of an obstinate character, and most apt to reappear even in months or years after they seem to have been completely cured, length of time is as important to their perfect removal as the most judiciously planned course of treatment. The physician should, therefore, in every case, be most

careful not to promise a speedy cure, and always, before prescribing, explain to his patient the chronic character of the disease, and that it requires a steady perseverance in the use of remedial measures for at least two or three months before even an apparent amendment will be perceptible. The anxiety of mind which an individual laboring under a cutaneous eruption suffers is very great, and this, too, adds to the difficulty of treatment. The promise of an eventual cure, though after a lengthened period, tends to alleviate this anxiety, and prevents the repeated disappointment, changes of medical advisers, and trials of new plans of treatment, which the hope deferred, when a speedy cure has been promised, causes.

Pathology.—"It is an admitted fact," writes Cazenave, "that the therapeutics of these diseases rests upon purely empirical grounds, and that, unhappily, there exists no sure guide to direct to a rational mode of cure." This statement, sufficiently true of most eruptions of the skin, is equally so of many other diseases of the body, and it should teach us not to despise the light thrown on pathology by the experience derived from therapeutics. When it is found that a certain class of remedies acts beneficially on deranged conditions of the animal economy, concerning the true nature of which doubt exists, it cannot be termed a *petitio principii* to infer that such derangements have a similarity in a greater or less degree to affections the nature of which is known, and which are benefited by the same class of remedies. In the treatment of scaly diseases of the skin, iodine, in some of its various combinations, and cod-liver oil are especially useful; and I would, even from this therapeutic fact alone, be inclined to look upon the peculiarity of constitution in which they occur as nearly allied to the scrofulous; in fact, that their appearance is but one of the Protean forms in which scrofula may be developed. And, independently of the beneficial effects of iodine, if we look to the remedies ordinarily proposed as specifics for their cure—of course I speak only of those administered internally, or, so to say, constitutionally—what are they but tonics, alteratives, or diaphoretics, generally employed in the treatment of scrofulous affections?

Again, if we lay aside the analogy derived from therapeutics, in how many points do not scrofula and scaly eruptions of the skin agree?—their hereditary nature, their slow development, the period of life at which they appear, their production by innutrition or mal-innervation of the system, their obstinacy, their liability to recur or to be again reproduced, the diathesis of the individuals in whom they appear, &c.

Treatment.—In consequence of its extreme obstinacy and usually chronic character, there is probably no eruption of the skin for the treatment of which so many varied remedies have been and still are proposed, as for psoriasis. Some trust altogether to topical medication for its cure, while others rely exclusively on the employment of constitutional remedies—both are needed, and neither should be neglected; the former must be used when the eruption has lasted for any length of time, or where it affects an extended surface of the skin, to produce a new local action, and to remove the diseased condition of the integuments; while the latter is required to correct any deviation from a healthy state, whether functional or organic, of the internal organs which may be present, and to alter the constitutional derangement, to the existence of which the eruption is due. Before commencing any plan of treatment, therefore, it is necessary to take into account the age, constitution, and diathesis of the patient, the extent of surface affected, and the previous duration of the disease.

In strong, healthy, plethoric young persons of either sex, when the eruption is of the guttated form, or affects only a small portion of the skin, Dr. Neligan was of opinion that its progress will generally be stopped, and a cure effected by the use of tolerably active saline cathartics every second or third day, preceded by a general blood-letting, and the daily use of a *fresh-water* bath, at the temperature of 98°. He also was of opinion that in persons of a sanguine temperament, or of very plethoric habit of body, the bleeding may be repeated, but that in all cases only a moderate quantity of blood should be drawn; for when much has been removed at a time, or the operation frequently repeated, the eruption is apt to

take on an aggravated character, and to become chronic. Notwithstanding this opinion of Dr. Neligan, the Editor cannot look upon the system of general bleeding as any other than useless, if not positively injurious. The best cathartics that can be used are the saline purging mineral waters, such as those of Pullna, of Seidlitz, of Cheltenham, of Leamington, of Droitwich, of Kreuznach, etc.; or, in their absence, the compound saline powder may be given in the dose of two drachms, dissolved in half a pint of lukewarm water, to which from twenty to thirty minims of the liquor potassæ, or, preferably, Brandish's alkaline solution, and the same quantity of some aromatic tincture, as of orange-peel, should be added; in either case, the purgative should be taken in the morning early before breakfast. By these simple means, continued for five or six weeks, many of the milder cases of psoriasis may be cured; but more generally, and invariably when the eruption has existed for some time before it is submitted to treatment, it is only alleviated thereby.

When the disease affects old persons or individuals of a weak constitution, all debilitating remedies must be carefully eschewed; in its early stages, then, stimulating diaphoretics combined with tonics should be employed, and the tepid bath, or tepid douche if the eruption be local, used once or twice a week when the patient's strength admits, or the hot vapor bath may in some cases be substituted with benefit for the water bath. Guaiacum and mezereon often prove the best diaphoretics in these cases of psoriasis, and they may be given in combination, as in the following form:—

R. Tincturæ Guaiaci Ammoniata, . . . drachmam.
 Tincturæ Serpentariæ, semi-drachmam.
 Mucilaginis Acaciæ, minima viginti.
 Decocti Mezerei, drachmas sex cum semisse.
 Infusi Dulcamaræ, unciam.

Misce. Fiat huastus.

Sumat talem unum ter indies.

In scrofulous children, the progress of the disease may in its early stages be stopped, and a cure effected by the administration of cod-liver oil; and this medicine proves also very successful in many cases of the local forms of

the eruption in adults; but with children or young persons the employment of the tepid bath at the same time should not be neglected.

In the more aggravated forms of psoriasis, however, or when the disease has become chronic, recourse must be had to the more active alteratives, some of which have acquired a sort of *specific* reputation for the treatment of scaly diseases; and of all that have been used none effects a cure so frequently as arsenic, whether it be given alone or its administration conjoined with the application of various local agents. Dr. Neligan was of opinion that in every case the beneficial action of this medicine is more decided and more speedily manifested when iodine or the iodide of potassium is employed at the same time, or alternated with it, and that in those cases—not few in number—in which arsenic, no matter how prescribed, disagrees, the preparations of iodine suffice usually to cure the disease. Arsenic may be prescribed either in the fluid form or in that of a pill, but, however given, the dose should be small, increased very slowly, and continued for a lengthened time, at least for several months. Of the liquid preparations, the liquor arsenicalis of the *British Pharmacopœia*, Fowler's solution—a convenient name for prescribing when it is requisite to conceal from patients or their friends that arsenical preparations are being administered—is probably the best; or the liquor arsenici chloridi, De Valangin's mineral solution—introduced into the last edition of the *London Pharmacopœia*—may be used; they should not be given at first in a larger dose than four minims, three times a day, in an ounce of infusion of dulcamara, to which, except in persons of a full habit of body, two drachms of syrup of mezereon may be added. The arseniates of ammonia or of soda may also be given in solution in water, with a little syrup, or in some vegetable infusion or decoction, in the dose of a twentieth of a grain, very gradually increased to the fifteenth of a grain, three times daily. The arseniate of soda may also be given in the officinal form of the *British Pharmacopœia*—liquor sodæ arseniatis—in doses of from three to ten minims thrice daily, in some vegetable infusion or decoction; or, better still, in plain

water. The following form, for the administration of the arseniate of ammonia, was first proposed by Biett:—

R. Ammoniæ Arseniatis, . . . granum cum semisse.
 Aquæ destillatæ, . . . uncias tres.
 Spiritus Angelicæ, . . . drachmas sex. Misce.

Signetur—"One teaspoonful, gradually increased to three, to be taken for a dose in some aromatic water."—See Sixth Edition (Macnamara's) of Dr. Neligan's *Medicines*, &c., p. 521.

Notwithstanding the strongly expressed views of Mr. Ilunt and others, Donovan's solution of the hydriodate of arsenic and mercury, which was officinal in the last edition of the *Dublin Pharmacopœia*, but which is no longer a Pharmacopœial preparation, is another liquid form that has been often employed successfully in the treatment of psoriasis; in consequence of its containing mercury it is especially applicable for those cases in which the eruption is either a secondary symptom, or is connected with a syphilitic taint in the system; but, from my own experience, I do not think that mercurial preparations in any form are generally applicable for scaly diseases, except in the local forms appearing in children, and I have not unfrequently seen their use followed by an aggravation of the symptoms. I have consequently, for some years back, substituted for Donovan's solution a compound in which mercury is replaced by the iodide of potassium; this mixture may then be termed an *Ioduretted solution of the Iodide of Potassium and Arsenic*; it is prescribed in the following form:—

R. Liquoris Arsenicalis, minima octoginta.
 Iodidi Potassii, grana sexdecim.
 Iodi puri, grana quatuor.
 Syrupi Florum Aurantii, . . . uncias duas. Solve.

This solution,¹ which is of a rich wine-yellow color, and keeps unchanged for years, contains in each fluidrachm five minims of arsenical solution, a grain of iodide of potassium, and a fourth of a grain of iodine. Forty minims of it at first may be given three times a day in simple water, or in any tonic or diaphoretic vegetable

¹ See Sixth Edition (Macnamara's) of Dr. Neligan's *Medicines*, &c., p. 598.

infusion or decoction, as individual circumstances may indicate, and the dose gradually increased to eighty minims; it is, of course, scarcely necessary to observe that this compound, as are all which contain iodine, is incompatible with vegetable preparations in which starch is present, or with the stronger acids. In cases in which from any reason it may be advisable not to prescribe arsenic, the Fowler's solution can be omitted from the above mixture; and, unless in the inveterate forms of the eruption, or when it has been of very long standing, the iodine preparations should in the first instance be tried alone. In some cases, in which neither iodine nor arsenic agreed either separately or conjointly, the Editor found a combination of arsenic and quina most useful; it may be prescribed in the form of arsenate of quina; or, better still, by adding Fowler's solution to an ordinary quinine mixture.

Where it is wished to prescribe arsenic in the solid form, the best preparation of it is the iodide, which may be given in pill, made with conserve of roses or with hard manna and mucilage, in doses of from the twelfth to the tenth of a grain, three times daily, very gradually increased¹ until the fourth of a grain is taken at each time; the arseniates of ammonia or of soda may be given in the same form. In the more rebellious cases of the disease, and especially when it occurs in persons of a debilitated constitution, an excellent and favorite formula for the administration of this powerful agent is what has been termed the *Asiatic pills*, in consequence of their being first beneficially employed in the East Indies, whence we derive our knowledge of their efficacy; they are prepared by rubbing together a drachm of arsenic and nine drachms of powdered black pepper, with sufficient liquorice powder and mucilage to make 800 pills. Each of these contains about a thirteenth of a grain of arsenic, and one or two may be given daily. No matter what preparation of arsenic is employed, it should be administered after meals, as it is then less apt to derange the stomach, and the effects should be

¹ As already observed, the Editor does not coincide in this proposal to give gradually increasing doses of an arsenical preparation.

carefully watched; the continuance of headache, of sickness and pain in the stomach, of dryness of the fauces, or of tenderness, with heat and redness of the eyes for a few days, requiring its omission for a short time, and the administration of an active cathartic, when it may be again resumed. It generally occurs *that in the treatment of scaly diseases by arsenic or by iodine, the eruption at first presents an aggravated appearance, the affected parts exhibiting an irritated aspect, and the scaly desquamation being much augmented, but these symptoms soon pass away, and signs of amendment begin to show themselves.* In all cases the use of the remedies which have proved successful should be persisted in for some weeks after the disease is apparently cured, so as to prevent a relapse. Mr. Hunt and Mr. Milton rely almost exclusively on arsenic. Hebra uses it internally in various ways, at the same time using local remedies. Hardy believes in the use of copaiba, which Bazin considers inferior to arsenic.

Chronic cases of psoriasis are very frequently complicated with derangement of the digestive organs, evidenced by various dyspeptic symptoms; the most prominent of these are nausea and vomiting immediately after meals. This condition must be remedied by appropriate alterative and tonic treatment, previously to the employment of medicines, with the view of acting directly on the eruption; for if arsenic or iodine, in any form, be given while this condition is present, they will tend to increase the existing irritation, and their expected beneficial action be thereby prevented. The tepid fresh-water, the douche, or the vapor bath, should be employed at least once or twice a-week, in addition to the use of the internal remedies now recommended.

Hebra has found the hydropathic system of benefit in severe cases. The patient is treated much after the fashionable custom called "packing." At the end of three or four hours perspiration he takes a cold bath, then a cold douche, is rubbed dry, and takes walking exercise. This he goes through twice in the twenty-four hours, and lives on simple, nutritious diet, without alcohol, but with plenty of cold water-drinking instead.

The so called Turkish bath is lauded to a great degree by others.

But cases of psoriasis occur which resist with obstinacy the administration, even though much prolonged, of either or both of these powerful medicines, and then recourse must be had to some of the many other remedies, both constitutional and topical, which have at times proved useful, and have consequently found warm advocates. Sulphur and its preparations have been highly praised by many practitioners for their efficacy; and, in the very inveterate forms of the eruption occurring in languid constitutions, or when there is no determination of blood to the affected parts, nor local irritation, the sulphurous mineral waters, both taken internally and employed in the form of tepid bath, cure the disease when other remedies have failed; but to derive the full benefit from them their use should be continued for several months, otherwise the eruption is sure to reappear. When the mineral waters cannot be procured, or the patient is unable to go to their sources, which is always most advisable, sulphur may be given internally, and baths or lotions of the sulphuret of potassium used. In the local forms of the disease the iodide of sulphur ointment is a most valuable topical application, but it should be used only of moderate strength, from eight to twelve grains to the ounce of white wax ointment, and its efficacy is much increased by the addition of a drachm of glycerine to each ounce.

M. Cazenave has administered the carbonate of ammonia, in the treatment of psoriasis, with marked success; he prescribes it in the dose of about two grains and a half, from one to three times a day, in a tablespoonful of syrup of sarsaparilla. "In general, the symptoms it causes are scarcely to be noticed; some slight disturbance of the digestive organs, and occasionally slight heat and tingling of the skin. Yet, after an interval of time, varying usually from three to eight days, when good results follow, the scales begin to be detached, those which succeed them are more and more fine and of a duller aspect, and the patches on which they are situated lose their red tint and gradually fade away; after a

longer or shorter period a complete cure, and one which is often permanent, takes place."¹ When carbonate of ammonia was thus administered, M. Cazenave found it to occasion diarrhoea, preceded by colic, lassitude, sometimes headache, slight acceleration with diminished fulness of the pulse, alterations of heat and cold of the surface, &c.; these symptoms disappeared on omitting the use of the medicine for a few days, and this fact, together with their similarity to those caused by arsenic, led him to draw an analogy between the mode of operation of the two medicines.

Among other constitutional plans of treatment proposed for psoriasis, bringing the system under the influence of mercury has proved successful in the hands of some practitioners; it is chiefly applicable, as already remarked, to those cases in which a venereal taint exists; but it may also be used in the milder forms of the eruption, when they do not yield to the more simple treatment recommended above. The preparations of mercury which are preferred are those that act slowly, and rarely produce salivation, such as the red iodide or corrosive sublimate; the latter is very frequently prescribed in decoction of cinchona bark, a good combination, although not strictly chemical.

Copland relies chiefly on the employment of emetics and purgatives at the same time, and their use is certainly attended with much benefit in most cases, previously to commencing the administration of the more active alteratives. The alkalies, especially the liquor potassæ, have also been highly recommended, particularly in the local forms of the eruption; but in any cases in which I tried them the result was not satisfactory. From its original use by Biett, and the favorable notice taken of its action by Rayer, tincture of cantharides has been rather extensively administered, especially on the Continent, in the treatment of psoriasis; it certainly succeeds in some cases in which other remedies have failed, but its employment, even in small quantity, must be carefully watched, in consequence of the dangerous effects it is apt to produce

¹ *Annales des Maladies de la Peau et de la Syphilis*. Tom. iii. p. 315.

on the urinary organs. It may be given in doses of five minims, gradually increased to fifteen or twenty, three times a day, in at least an ounce of some emulsion, or of decoction of linseed or barley. Numerous other medicines, especially diaphoretics, diuretics, tonics, and stimulants, have been employed in this disease, but none require mention here, with, perhaps, the exception of tar or pitch, which, when given internally, and at the same time applied to the affected surface, is regarded by some physicians as quite a specific; I consider it, however, much inferior in its medicinal efficacy to most of the other therapeutic agents which have been now noticed.

Local applications, ointments, lotions, baths, &c., have been at all times favorite methods of treating psoriasis, and many have attempted to cure the disease by their use alone; with this view, also, it has been proposed to destroy the eruption by the free application of nitrate of silver to the affected parts; but such a proceeding tends only to aggravate the morbid state of the cutaneous surface, and is not altogether unattended with danger. The simple *fresh-water* tepid bath has proved, in my experience, the best topical remedy—I might almost say the only one needed, and it should be employed at least once a week in all forms of psoriasis; its use tends to restore the natural secretion of the skin, and to prevent the accumulation of scales. When the eruption is local, and attended with symptoms of irritation or inflammation, soothing unguents, as those containing chloroform, preparations of lead, zinc, &c., or poultices prepared with the lead wash, often prove highly serviceable; and in the more chronic cases, when neither inflammation nor inflammatory irritation is present, stimulating applications are occasionally required; of these, probably the best is the iodide of sulphur ointment spoken of before, or the following, which was highly recommended by the late Dr. Anthony Todd Thomson:—

R. Calomelanos,	grana sexaginta.
Unguenti Picis liquidæ,	semi-unciam.
Adipis præparati,	unciam. Misce.

Of other local applications it will be sufficient to enumerate blisters, creasote, turpentine, tincture of iodine,

corrosive sublimate in lotion, black and yellow wash, citrine ointment, &c. The alkalies, when applied topically, generally, I think, prove injurious.

Dr. Moore applies *sapolaricis*, his preparation for which will be found in Chapter XIV; and reference may be made to his paper "On the Pathology and Therapeutics of Diseases of the Skin" (*Dub. Hosp. Gaz.*, 1860, p. 22) for details of cases exhibiting a useful combination of dietetics, constitutional and local remedies.

Strict attention to diet and regimen is especially requisite in the treatment of psoriasis; a milk diet should be, if possible, enforced, except in cachectic or broken-down constitutions, and when from this or any other cause it cannot be altogether adopted, farinaceous articles and milk should be made as much as possible a portion of the general food, and, in addition, fresh meat, plainly dressed, or poultry, should alone be allowed. From its being so much easier to carry out dietetic rules in hospital patients than with those in private or in dispensary practice, more satisfactory results are usually obtained in treating the former, and, consequently, perfectly accurate conclusions as to the effects of remedies in the treatment of any disease, whether of the skin or not, can only be drawn from hospital experience, except under unusually favorable circumstances in special cases.

PITYRIASIS.

Pityriasis, from *πίτυρον*, bran; Dartre tarminieuse of the French; Schuppen of the Germans.—See Plate XI.

PITYRIASIS is a scaly cutaneous disease, characterized by an abundant secretion and desquamation of minute, furfuraceous, white, and shining scales, from slightly elevated, irregular patches of the skin, of a yellowish, reddish-yellow, or dark-brown color, varying in extent, or from the surface of the body generally. It is attended usually with smart itching of the parts affected, sometimes with painful inflammatory tingling, and both are much augmented by any cause that may produce increased capillary circulation of the integuments. It is non-contagious, unaccompanied by constitutional symptoms; and

although attended in its early stages, and in some cases throughout its entire duration, with more or less local inflammatory action, almost invariably runs a very chronic course. Pityriasis is, for the purposes of description, naturally divided into varieties, as it may affect the cutaneous surface generally, or some special region of the skin. Willan, who has been followed amongst others, by Cazenave and Schedel, described but one local form of it—that of the scalp, and divided the eruption, when it affected the body generally, into three varieties, according to the color which the diseased patches of integument presented, namely, Pityriasis *rubra*, Pityriasis *nigra*, and Pityriasis *versicolor*. Both Rayer and Erasmus Wilson consider the first of these only as being a scaly disease, and regard the others as simply alterations in the color of the skin, accompanied by a foliaceous or mealy desquamation, and not by the separation of true scales. As, however, in both forms there is a squamous secretion differing only in degree from the first, I prefer to regard them as sub-varieties of general pityriasis. Adopting, then, strictly the division of the disease into two forms—general and local—they may be termed:—

Pityriasis *diffusa*.

“ *localis*.

The early stage of *pityriasis diffusa* (Plate XI, Fig. 2) is marked by a sensation of heat and tingling on various parts of the cutaneous surface, usually on the neck, the chest, the abdomen, the back, and sometimes on the face and hands: uncircumscribed patches of a yellowish or reddish-yellow color, scarcely elevated above the surrounding integument, appear on the places which had been the seat of the itching, and on them minute, branny, micaceous scales soon form, at first in small quantity, but afterwards in very great abundance, desquamating freely when the spots are rubbed, or, should the eruption be general, on the least movement of the body. The affected patches vary much in shape and size, being often of an irregularly rounded form, separated at first by healthy skin, over which, in most cases, however, the scales gradually extend, and becoming confluent, cover

the body almost universally; the furfuraceous desquamation is then extreme, and is attended with much itching, especially when the surface of the body is heated, and the disease assumes a very obstinate character. The skin from which the desquamation takes place—which in the commencement presents various shades of red and yellow intermixed, whence the specific appellation of pityriasis *versicolor* has been applied to this form—gradually becomes of a lighter shade of yellow, and in many instances the secretion of scales then ceases, yellowish stains remaining on the surface for some time; but in others the desquamation, attended with more or less itching, lasts with extraordinary obstinacy for months, or even years, after the skin has resumed its natural color.

In some cases the eruption is more partial, being confined almost exclusively to the integuments of the thorax, usually appearing on the chest; the spots or patches assume from the first a bright color, so marked that in the commencement they can scarcely be distinguished from erythema, they are also attended with much heat and itching, indicating the inflammatory nature of the disease; the characteristic scaly secretion and desquamation soon appear, however, and determine its nature. This form, which is also very obstinate, has been termed pityriasis *rubra*; it is of much less frequent occurrence than pityriasis *versicolor*, but oftener witnessed than the next sub-variety.

Pityriasis *nigra* is a very rare form of the eruption; it does not seem to differ in any respect from pityriasis *rubra*, except in the color of the diseased patches, which are dark-brown or nearly black, and usually appear on one or both of the lower extremities; according to Cazenave's observations, the black tint is in some cases so superficial that, on removing the epidermis, the derma is seen beneath, of a red, shining aspect; in others, however, the color affects the sub-epidermic layer of the derma. In both pityriasis *versicolor* and pityriasis *nigra*, the chromatogenous functions of the derma must be more or less disordered to account for the peculiar discoloration of the skin which accompanies them. As before remarked, Rayer considers the changed color as their essen-

tial characteristic, and he consequently terms the former *Chloasma*, and the latter *Melasma*; this view has been adopted by Wilson also.

Several *local* forms of pityriasis have been described, chiefly by Rayet; thus he notices it specially as it affects the eyelids, pityriasis *palpebrarum*; the mouth and lips, pityriasis *oris et labiorum*; the prepuce and pudendum, pityriasis *præputialis et pudendalis*; the feet and hands, pityriasis *palmaris et plantaris*; and the scalp, pityriasis *capitis*. None of these, except the last, differ essentially from the eruption as it affects the body generally, and do not, therefore, require to be specially described; many dermatologists, indeed, and I think with much correctness, admit the existence of but one local variety of pityriasis—that of the scalp.

The development of pityriasis *capitis* (Plate XI, Fig. 3) is not accompanied by any sign of constitutional or local disturbance, but soon after its eruption it gives rise to much itching, without heat or redness of the surface. The disease consists in the secretion of numerous minute, papyraceous, dry, and shining scales, in most cases scattered over the entire of the head, without any sensible elevation of the surface, and perfectly free from moisture. I cannot describe the precise manner in which the eruption originates, as I have never seen it until the squamous secretion was fully developed, there being no symptoms to direct the patient's attention to it until then. The presence of the scales produces much itching, compelling the individual affected to scratch the head, by which they are very readily detached in large quantity, in the state of a fine powder or *dandriff*; their removal is rapidly succeeded by a further secretion. If the condition of the scalp in pityriasis *capitis* be examined, the surface is found to be closely covered with the imbricated scales, with small intervals here and there; the skin of the unaffected parts presenting a smoother or more polished appearance than natural. On removing one of the scales we find that the spot on which it is seated is raised, and that another finer scale may be removed from it; and it is not until after the removal of several scales, each finer than the preceding, that we arrive at the reddened and

inflamed surface of the scalp which is somewhat depressed. The chief annoyance which it causes is itching; the patient, in scratching himself to allay this troublesome symptom, removes large quantities of dandruff; and in the child the irritation is often so great that the scalp is torn, becomes inflamed, eczematous vesicles appear, and the original affection is thus complicated.

Although the hair in this eruption is not apparently diseased, it grows weak and thin, and falls out on the slightest cause, so that, when of long duration, baldness may result, which, except in very old persons, is, however, only temporary.

Pityriasis diffusa may occur at any age, but it is most common in adults; it seems to affect both sexes with an equal degree of frequency. Pityriasis capitis is most usually met with in infants at the breast, the frequency of its appearance decreasing with the advance of years towards puberty, at which age it is of very rare occurrence, but it again appears at the approach of old age. It thus seems to be most frequent when the head is least covered with hair, and it is also most generally seen in individuals whose hair is naturally thin.

The *causes* of pityriasis are very obscure; in most cases it is manifestly a constitutional affection, but in some instances it is evidently produced by the action of local irritants. Thus its occurrence on the scalp may be often accounted for by the use of hard brushes or a fine-tooth comb, or from not drying the head sufficiently after it has been washed; appearing, too, most frequently at those ages in which the scalp is least covered with hair, it may be then caused by the sudden changes of temperature to which the surface is consequently exposed. The eruption, when general, appears to be more or less connected with some deranged state of the nervous system, especially when this state is accompanied by increased cutaneous susceptibility, and is also not unfrequently attendant on a disordered condition of the digestive organs. I can confirm the observation of Cazenave that in some cases, especially in nervous females, pityriasis capitis succeeds repeated attacks of nervous headache. The use of stimulating cosmetics,

whether in the form of lotion or of pomade, is a not unusual exciting cause of the eruption. Dr. Fox thinks that it seems to be dependent on some peculiar state of the blood; M. Hardy believes it to be allied to eczema, and that it results from the *dartrous* diathesis; while Hebra believes *P. capitis* to be due to an excessive secretion from the sebaceous glands. Fox, Hillier, and others believe *P. diffusa*—*i. e.*, *P. versicolor*, or *Chloasma* of Wilson, to be a parasitic disease, and the merit of discovering the fungus is claimed by Eichstedt (*Froriep's Notizen*, 39 Band, July–Sept., 1846), according to whom the plant is the *microsporon furfur*. Dr. Fox has noticed the disease to be produced by implantation of the *oidium*, and Hutchinson stated it to be produced from the fungus of *tinea tonsurans*. Wilson does not believe the parasitic theory, but upholds his own—that termed *granular degeneration*.

Diagnosis.—Pityriasis is distinguished from psoriasis by the fineness and thinness of the scales, which are not thicker than the healthy scarf-skin, even when the disease is very chronic; by their being desquamated in excessive quantity; by the parts affected being scarcely elevated above the surrounding integument; by the peculiar color of the surface of the skin on which the eruption is situated; and by the attendant pruritus. It might be confounded with chronic lichen or eczema, in consequence of the furfuraceous desquamation which attends the advanced stages of both these diseases; pityriasis, however, is not preceded by any eruption, is never accompanied by any discharge, and in it the skin is never chapped nor fissured. From ichthyosis the diagnosis is made without difficulty, the peculiar dry, hard, rugose, and, so to say, horny condition of the integuments being sufficiently characteristic of that affection. Pityriasis capitis is distinguished from the other eruptions which occur on this region of the body by its true scaly nature, the scales being minute, dry, papyraceous, and imbricated, though scarcely, if at all, elevated above the surface of the scalp, and readily separable in the form of a fine powder or dandruff; by there being no attendant inflammation unless it be produced by some

irritating cause; by the absence of discharge; by the hair being unaltered, but falling out more easily than is natural; and by its not being contagious: it occurs, too, most generally in advanced periods of life, being rare in childhood, adolescence, and manhood.

Prognosis.—Trifling an eruption as pityriasis seems to be, it is one of extreme obstinacy, and not unfrequently, when it has continued long, causes more or less derangement of the general health, chiefly from the mental annoyance which its persistence occasions; this is especially witnessed when it affects the scalp of females at or about the age of puberty, to whom the falling out of the hair and the continued desquamation of dandriff are a source of constant distress; I have seen more than one instance in which extreme nervous and general debility was produced by this cause alone. The longer pityriasis has lasted the more difficult it is to cure, and relapses after apparent perfect recovery are very likely to occur. That the continued existence of the eruption generally over the surface of the body may not be altogether unattended with danger is proved by Rayer's narrative of a case in which he saw it prove fatal.

Treatment.—In the treatment of pityriasis, as of many other cutaneous diseases, it is too much the habit to resort to the indiscriminate use of active stimulants both internally and as topical applications; I do not mean to undervalue the benefit derived from their employment in many chronic eruptions, but I must protest against the custom which for some years back has become so general, of having recourse to them in all cases without regard to the fact that a majority of the affections of the skin are inflammatory in their origin, and that even in their advanced stages, when all tendency to inflammatory action has apparently disappeared, local irritation or capillary excitement often causes a fresh outbreak of the eruption, or an aggravation of the symptoms. These remarks, while they are true of many cutaneous diseases, are especially applicable to that now under consideration, which, though much less inflammatory than many others, is extremely liable to be reproduced by the action of stimulants—whether constitutional or local—a fact that

every one, who has had any experience in the treatment of this class of affections, must, I feel certain, have observed.

When pityriasis is of the diffuse form, if it occurs in strong, healthy, young persons, a small general bleeding proves often of service in its early stages [? Editor], but the withdrawal of blood is not admissible otherwise; tepid gelatine baths should be used for at least half an hour daily, or every second day from the first, and purgatives be freely administered: of the latter class of medicines none prove so useful as the alkaline cathartic mineral waters, either thermal or cold, according to the age and constitution of the patient; for example, those of Carlsbad or Marienbad; but a combination of mild mercurials with alkalies, as in somewhat the following form, should be prescribed at the same time:—

R. Pilulæ Hydrargyri,	. . . . .	grana novem.
Sodæ Carbonatis exsiccatae,	. . . . .	grana sex.
Extracti Taraxaci,	. . . . .	grana duodecim.
Extracti Hyoscyami,	. . . . .	grana tres.
Misce.	Fiant pilulæ sex.	

Sumat unam omni alternâ die semi-horâ ante prandium.

When the mineral waters cannot be procured, a drachm of the sulphate of soda—previously deprived of its water of crystallization, by exposing it to a red heat—and twenty grains of the bicarbonate of soda, dissolved in half a pint of tepid water, may be given in the morning after the pill.

Should the eruption resist this plan of treatment, and exhibit a tendency to become chronic, alkaline baths—four ounces of the carbonate of soda, or two ounces of purified carbonate of potash, in sufficient fresh water for an ordinary bath, at the temperature of from 80° to 92° Fahr., according to the season of the year—may be substituted for those of gelatine; and the surface of the body, previously well dried after leaving the bath, should be anointed with a pomade, composed of four ounces of prepared lard, well beaten up with an equal quantity of elder-flower water, then squeezed as dry as possible, and half an ounce of glycerine added. The mercurials and alkaline saline cathartics must still be continued; but should the

eruption become essentially chronic, the more active constitutional alteratives, iodine and arsenic separately or combined, as recommended for the treatment of psoriasis, must be prescribed. In cases in which the pruritus is extreme, chloroform, added to the pomade above recommended, in the proportion of from eight to twelve minims to the ounce, will be found the most effectual application for allaying it; lotions and ointments containing hydrocyanic acid or the preparations of lead have been employed usefully for the same purpose.

In some of the local forms of pityriasis, the vapor douche bath is of especial service, and the constitutional treatment applicable to the general disease is also indicated. When the scalp is the part affected, the hair should be cut close—not *shaved* off—and so kept during the progress of the treatment: this is not requisite in old persons when the hair is thin on the head. In the early stages, weak alkaline ointments and lotions, with the addition of glycerine to either, will be found the most beneficial applications; but when the eruption is of long standing, or occurs in persons of debilitated constitution, the tannic acid or dilute citrine ointment, should be substituted for the former, the lotion being still used each time before the ointment is applied. When the eruption appears on the scalp of scrofulous children, cod-liver oil will be beneficially administered, but for those who are not scrofulous the alterative powders of the iodide of mercury and hydrargyrum cum cretâ, as I have recommended for other diseases of the scalp, are better adapted. In very obstinate cases of any of the local forms of this eruption more stimulating applications may be tried, such as ointments containing calomel or white precipitate, in the proportion of a drachm of either to the ounce of prepared lard or of white wax ointment, with the addition of glycerine, or lotions containing the cyanide of mercury or corrosive sublimate, but their effects must be carefully watched, as they often cause a sudden aggravation of the symptoms. For the same reason the sulphurous mineral waters and sulphurous baths should be used with caution, yet they unquestionably prove at times of much benefit

in chronic cases of the disease in persons of a languid circulation.

In general or diffused pityriasis Mr. Startin gives corrosive sublimate in infusion of elm bark. Hardy treats pityriasis capitis with soap and water and a solution of carbonate of potash, afterwards using an ointment of one part of sulphur to thirty of lard, or one *gramme* of nitric acid to thirty of lard. With old persons Dr. Frazer uses a weak solution of tannin in glycerine. Dr. Jenner uses a solution of corrosive sublimate, four grains to the ounce; and Mr. Hilton, commenting on all these, observes: "When these means fail, I believe there is just one remedy, and that is arsenic, which will, unless my experience has quite misled me, cure every case that is curable."

Dietetic rules are most important in the treatment of pityriasis, and when the digestive organs are deranged remedies calculated to restore their healthy tone should be employed. The food ought to be light but nourishing, as the strength must be supported, and therefore milk and farinaceous articles of diet are especially indicated; in the case of children, a strictly milk and vegetable diet should be enforced. Stimulating or heating drinks must be altogether prohibited, and the surface of the body kept as much as possible of a uniform temperature, extremes of heat and cold being avoided. In consequence of the liability to relapse, whatever treatment may be found to be successful should be continued for at least a month or six weeks after an apparent cure has been effected.

CHAPTER VII.

HYPERTROPHIÆ.

IN the Order HYPERTROPHIÆ I purpose to include all diseases of the skin which are specially characterized by an hypertrophied condition, attended with a morbid change from their normal state, of any or all of the anatomical elements which compose the tegumentary membrane. The affections to be described in this division are of a chronic nature both in their development and progress, rarely exhibiting in any of their stages signs of constitutional disturbance or inflammatory action, either local or general, yet some of them are unquestionably of constitutional origin, while others are manifestly produced by the direct action of irritant causes. I have already mentioned the objections which exist to the employment of the term "Tubercula," for the purpose of designating a group of diseases of the skin, or to its retention at all in cutaneous nosology; applied formerly to include several affections, nearly all modern dermatologists who still retain it have restricted its application to some forms of secondary syphilitic eruptions, to Lupus, and to Elephantiasis; now, of these it is evident that the first will be more correctly classed and more conveniently described with the other syphilitic diseases which affect the skin; the second is specially characterized by its malignant nature; and therefore the third only can, with any degree of accuracy, be designated as a tubercular affection, and yet although placed by Willan and Bateman in this class, it differs essentially from their own definition of a tubercle.

The appellation I propose has the advantage of not being an innovation in cutaneous nosology; it has a place in all modern natural systems of classification of

affections of the skin, as constituting a special group, and I only seek to extend its signification as in any artificial arrangement may be correctly done—there being no necessity here for regarding the so-called natural affinities, similarly of elementary lesion or of external phenomena sufficing for the grouping of diseases. The order might certainly be made to constitute several groups were strict accuracy in arrangement the sole or even chief object in my inquiry; but regarding all systems of classification as altogether secondary, and useful more for the purposes of description than for affording any aid either in diagnosis or treatment, I think it better to make as few divisions as possible. The following are the diseases I shall describe in this chapter: Ichthyosis, Molluscum, Stearrhœa, Elephantiasis, Verruca, Clavus, Callositates, Condylomata, Nævus.

ICHTHYOSIS.

Ichthyosis (according to Mason Good more correctly *Ichthyiasis*), from *ἰχθῦς*, a fish; Ichthyose, of the French; Fischuppenkrankheit, of the Germans.—See Plate XI, Fig. 4.

ICHTHYOSIS (*Fish-skin disease*) is characterized by a morbid alteration and hypertrophied condition of the epidermis, by which it is converted into thick, dry, horny, adherent scales, the orifices of the hair follicles and of the sudiparous and sebiparous glands being thereby obstructed. This affection, classed by Willan and those who have adopted his views amongst the Squamæ, is, as I have stated in the last chapter, distinctly separated from the eruptions contained in that group by its not being attended with any desquamation of scales. Most modern writers on diseases of the skin differ as to what are the anatomical lesions by which it is constituted, and, consequently, as to the precise position which it should occupy in a nosological arrangement. Mr. Erasmus Wilson, in his earlier writings, regarded it as consisting in a hyper-formation of the epidermis, but he has changed this opinion, and more recently announced his belief that the morbid condition of the integuments

is composed of concretions of altered sebaceous substance; repeated observation, aided by microscopic examination, compels me, however, to differ from so eminent an authority, nor have I been able even to comprehend the grounds on which he has come to this conclusion. Dr. A. T. Thomson, who included it under *tubercula*, did not live to publish his opinions in the posthumous work which bears his name; but that he had not been able to satisfy his mind as to the nature of the disease is evident from the account of it given by his editor, Dr. Parkes. By Cazenave and the majority of the modern French dermatologists, ichthyosis is looked upon as a lesion of epidermic secretion, and is, therefore, made to constitute a distinct group, of which it is the type. Hebra includes it in his third class, scaly eruptions, "Die Schuppichten Hautaus Schläge"—Efflorescentiæ Squamosæ.¹ Gustav Simon, whose views I adopt, regarding ichthyosis as an hypertrophy or increased development of the epidermis,² places it, in his classification, among the Hypertrophixæ.

Willan and Bateman described two forms of the disease, terming the one ichthyosis *simplex*, and the other ichthyosis *cornea*; they differ, however, merely as to the degree in which the epidermis is altered, and therefore cannot be correctly separated from each other for the purposes of description; other varieties have also been constituted by different writers according to the appearance which the altered integuments may present in certain cases: thus Wilson divides the disease into Ichthyosis *squamosa* and Ichthyosis *spinosa*; a form has been termed Ichthyosis *hysterix* by Fuchs; and another Ichthyosis *scutellata* by Schönlein. The Ichthyosis *cornea* of Willan (I. *Squamosa* of Wilson) appears to be the Seborrhœa sicca of Hebra, and the Acné sebacée cornée of Hardy. The literature of Ichthyosis is for the most part of an antiquarian, but highly interesting kind. The reader is referred to an excellent essay by Dr. Begbie, in the *Edinburgh Medical Journal* for July, 1861. In this essay

¹ *Diagnostic der Hautkrankheiten in tabellairischen Ordnung nach Dr. Hebra's Vorlesungen.* Von Dr. Bendict Schulz. Wien: 1845, p. 36.

² *Die Hautkrankheiten durch anatomische Untersuchungen.* Berlin, Second Edition, 1851, p. 49.

will be found an enumeration of most of the old writers on the subject, as well as a concise statement of the conflicting views of the moderns regarding its nature. Dr. Begbie himself regards it as an "essentially scaly or squamous disorder, and therefore correctly associated with *Lepra* and *Psoriasis*." In the forty-sixth volume of the *Medico-Chirurgical Transactions*, Dr. J. W. Ogle details four cases of Wilson's *Ichthyosis sebacea squamosa*.

Ichthyosis may be congenital, but more usually, commencing a few months after birth, lasts for life, affecting generally, after a short time, the entire of the cutaneous surface, except the palms of the hands, the soles of the feet, the eyelids, the lips, and the prepuce. It consists at first of an hypertrophied condition of the epidermis, which is dry, harsh, and corrugated, the natural linear markings dividing it into distinctly separated, polygonal and lozenge-shaped compartments. This change, except in congenital cases, in which at birth it is very general over the body, is first witnessed in certain regions only, namely, the ankles, the knees, the backs of the hands, the borders of the axillæ, and the neck; the morbid alteration, becoming gradually more aggravated on these parts, extends superficially also, affecting next the scalp, the fronts of the legs, the backs of the arms, the folds of the groins, the breasts, and the lower part of the abdomen; by degrees, however, if the disease be unchecked by treatment, the epidermis of the entire body, with the few exceptions noticed above, becomes engaged.

When *ichthyosis* is congenital, the skin of the infant at birth is dry, rough, uneven, and of a grayish-brown color, but the epidermis is little hypertrophied; this condition of it may continue for years, or even for life, accompanied by a constant mealy exfoliation, without being further aggravated, constituting the mildest cases of the affection. More generally, however, the epidermis soon becomes thickened, hypertrophied, and of a scaly aspect, bearing at times much resemblance to the scales of a fish—whence the name derived from the Greek word, *ἰχθύς*, a fish, was applied to the disease; the surface is deeply furrowed, shining, and of a sallow or greenish hue, free from hairs, and devoid of any secretion or

natural moisture; in parts the fissures occasionally extend quite through the hypertrophied epidermis, and the derma beneath is seen to be somewhat redder than in its healthy state, but it is not inflamed; the superficial thickened layers may be removed in scales by the nail, when the surface on which they rest presents also a similar appearance, but the epidermis is rapidly reproduced again in the same unhealthy condition.

Although, as has been mentioned, the orifices of the sudiparous and sebiparous glands are quite obstructed, there are no constitutional symptoms caused thereby, the general health does not appear to suffer in any respect, nor is the altered state of the integuments accompanied by heat, itching, or any other sign of local irritation.

In some cases the epidermis is much more altered from its normal condition than has been described above, presenting the appearance of innumerable short spines aggregated together, without any intervening space, over all those parts of the body which the disease affects; this form has been termed *spinosa* by Wilson; but Dr. Copland, regarding it as consisting in an hypertrophied and elongated condition of the papillæ of the skin, proposes to name it *papillary ichthyosis*. The surface of the body of persons afflicted with it presents a singular and remarkable aspect, being of a greenish-brown color, and so hard as to feel like horn, and to produce a grating noise when the hand is passed quickly over it, yet more or less elastic and yielding when pressed; the diseased epidermis is firmly adherent to the derma, and if attempted to be torn off with the nail, the part on which it is situated bleeds and is painful. The spiny elevations may be separated from each other, when it will be seen that they are of a grayish or yellowish-white color—the dark tint existing only on the surface exposed to the air—and that they vary in elevation from an eighth to a quarter of an inch; some of them, however, attain a much greater prominence than this, forming excrescences, or, as they have been termed, *horns*, fully an inch or even more in length. On the parts of the body which are exposed to pressure, as on the buttocks and on the joints, callosities

form, and in extreme cases the power of motion may be much limited. This form of ichthyosis is almost invariably congenital, not attaining its complete development, however, until it is about the age of puberty.

Since this disease of the skin was first noticed, it has at all times attracted much attention, owing to the singular condition of the integuments by which it is characterized; individuals affected with it in an aggravated form having been exhibited for money, in the case of males being termed *porcupine men*, and of females *mermaids*, the latter from the supposed resemblance of the skin to the scales of fishes; but it has been more aptly compared to the hide of an elephant or of a rhinoceros. Not being of frequent occurrence, moreover, in its full development some of these cases have been carefully described, the most celebrated probably being that of the family of the Lamberts, which occurred in the beginning of the last century. Of this family, John and Richard Lambert, two brothers, became notorious from their affliction with this disease. They travelled through various parts of Europe, exhibiting themselves as porcupine men. In their case the disease seemed to have been hereditary; for while their fathers for several generations had suffered from it, they had seven sisters who were entirely free from it, nor did it ever attack a female of their family. It is described as having attacked them about six weeks after birth, and at the time of their exhibition the only parts of their bodies not affected were the face, the palms of the hands, and soles of the feet; together with the interspaces and bulbs of the fingers.

Whether ichthyosis is general or partial the superficial layers of the hypertrophied epidermis are constantly being shed as a fine mealy desquamation; or, when softened by a warm bath, may be rubbed off with the hand, but are again rapidly renewed; the disease is always more marked on the regions of the body noticed above, as the parts where it first appears, and especially in the neighborhood of the joints; on the scalp the epidermis is not so much thickened as elsewhere, yet most of the hair is shed when it occurs there, and what remains is thin and weak. Although the general health seems to

be unaffected in persons the subjects of ichthyosis, attacks of diarrhoea are of constant occurrence, probably owing to the nearly complete obstruction of the cutaneous transpiration, and for the same reason those parts of the integuments which are not engaged, especially the palms of the hands and the soles of the feet, are constantly bedewed with moisture; the urinary and pulmonary secretions are also said to be increased in quantity, but in four cases of the disease which I have had under treatment this was not so. The affected parts were constantly below the natural temperature, and persons afflicted with the disease usually suffer much from coldness of the surface of the body.

There is an excellent illustration of this disease in the Sydenham Society's edition of Hebra's plates.

The nature of the *anatomical changes* which constitute ichthyosis have been carefully investigated, both microscopically and otherwise. The following description of them is given by Franz Simon: "The scales were of a gray or black color; when placed in water they softened, and on then placing a section under the microscope, I found that the abnormal structure was formed of compressed epithelial scales. On incineration the scales left an ash containing carbonate and phosphate of lime and peroxide of iron; the latter was in such abundance as to communicate a yellow color to the ash. The ash yielded by the incineration of the ordinary thickened skin on the hands and feet is perfectly white, and contains a mere trace of peroxide of iron."¹ This account, directly opposed to the views propounded by Erasmus Wilson, which have been before referred to, is confirmed by Gluge, who states that on microscopic examination he found the scales to be composed of epidermic cells.

Causes.—Obscure as are the causes of skin diseases, generally speaking, there is probably not one of which so little is known as to how or under what circumstances it is produced, as ichthyosis. When congenital, it has been ascribed, like all the other deviations from a normal state which are observed occasionally in the fœtus, to the effect

¹ *Animal Chemistry*; Sydenham Society's Edition, Vol. ii. p. 483.

of the mother's imagination while pregnant, it being popularly believed to be caused by a longing for some peculiar fish, or by fright arising from something connected with fish; but it need scarcely be remarked that these causes of the disease are altogether without foundation. It occurs in both sexes, but is much more frequent amongst males than females, in the proportion, according to Biett's observations, of one of the latter to twenty of the former; this is well established by the report of those cases in which ichthyosis has been hereditary, as it not unfrequently is—for example, in the family of the Lamberts above referred to, in which the disease was transmitted for several generations from father to child, the female members of the family being in no instance affected. This hereditary transmission of ichthyosis has been noticed in the majority of instances, but many cases of the disease occur in children born of parents healthy in all respects, and in whose families, as far as could be ascertained, no trace of the disease ever existed. Dr. Sedgwick, in the thirty-seventh volume of the *British and Foreign Medico-Chirurgical Review* (1861, p. 478), relates a case of a man affected with this disease. It did not affect any of his five children, three males and two females; while it attacked four of his five grandsons, sparing his only two granddaughters. The seven grandchildren were the offspring of his daughters. It is seen at all ages, but is usually congenital, or developed within the first year of life, very rarely appearing for the first time after the age of puberty, yet it has been witnessed as a primary affection in old persons, but always in a modified form. All the examples of ichthyosis which I have seen have been in persons, whether children or adults, of a well-marked scrofulous diathesis.

In *St. Bartholomew's Hospital Reports*, Vol. I, 1865, p. 198, Mr. Church gives a curious "Report of a case of Ichthyosis, with a Congenital Malformation of the Aorta."

Diagnosis.—With no other disease of the skin can ichthyosis be confounded, so distinctly characterized is it by the abnormal condition of the epidermis: in the cicatrices of wounds and of burns a peculiar warty growth is occasionally developed, which, having been first well

described by the celebrated French surgeon of the name, has been termed the *warty ulcer of Marjolin*; this disease presents characters somewhat resembling those of ichthyosis, but it may be at once distinguished by its local nature, occurring only in those parts of the integuments which have been previously the seat of some severe injury.

Prognosis.—Ichthyosis has been in all ages regarded as being incurable; it is at all events a most grave affection, and one which usually lasts for years, if not for life. When it presents the aggravated characters of the severe form, as above described, it should be regarded as beyond the reach of medical skill, but if it be submitted to treatment in its early stages, and while it is yet of a comparatively mild form, affecting the surface only partially, the progress of the disease may be arrested, and its further development prevented, if it cannot be completely cured.

Treatment.—From the extreme obstinacy and general incurability of ichthyosis, many plans, as may be supposed, have been recommended for its treatment, both constitutionally and topically. The latter have consisted chiefly in means to soften and promote the desquamation of the altered and hardened epidermis, and the former in the administration of the most powerful remedies which experience has shown act specially upon the skin. Warm water and vapor baths, with the preceding or subsequent employment of oleaginous and greasy applications, constitute the chief part of any method which has proved at all successful in the treatment of ichthyosis; their action is evidently due to a direct effect in softening the hypertrophied integument, and thus promoting its separation; but experience has shown that unless the state of the constitution on which the abnormal secretion depends be at the same time changed, it is again rapidly reproduced in a similar diseased condition. "The easiest mode," says Willan, "of removing the scales is to pick them off carefully with the nails from any part of the body while it is immersed in hot water. The layer of cuticle which remains after this operation is harsh and dry, and the skin did not in the cases I have noted recover its usual texture and softness; but the formation of the scales

was prevented by a frequent use of the warm bath, with moderate friction." More active local applications are recommended by some writers on the disease, such as sulphurous baths, stimulating lotions, containing corrosive sublimate and other preparations of mercury, caustic potash, etc.

In an account, published by Professor Banks,¹ of two cases of the disease which he treated successfully, cod-liver oil was employed topically, and at the same time administered internally; at bedtime the patients were placed in a vapor bath, and the surface of the body well rubbed afterwards with the oil, a flannel dress being always worn next the skin, with the view of keeping the surface constantly impregnated with it. The use of this remedy was, he says, suggested to him by the marked connection which he has seen to exist between the ichthyosis and the strumous diathesis.

In the first of these cases, which was *cured* under Professor Banks's treatment, the skin of the lower extremities, save on the inside of the legs and thighs, was more like the skin on a fowl's leg than fish-skin. The second case was subsequently to the publication of Professor Banks's paper removed to Sir Patrick Dun's Hospital, where, during his attendance on Dr. Banks's clinique in 1853, the Editor had an excellent opportunity of watching its progress. It was decidedly benefited by the plan which proved successful in the former case; but of its subsequent history the Editor knows nothing.

The internal administration of pitch was highly recommended in this disease by Willan and Bateman, and their experience of its benefits has been confirmed, especially by Dr. Elliotson; they ordered it to be made into pills with flour, and increased the dose gradually, until from half an ounce to an ounce was taken daily and often continued for months. But both Rayer and Biett state that although they gave this remedy a fair trial it failed completely in their hands. The cold water treatment has also been tried in the treatment of ichthyosis; but in one case

¹ *Dublin Quarterly Journal of Medical Science*, New Series, vol. xii. p. 80.

which I saw it did not produce the least good effect; in this same case, enveloping the affected parts with wet lint, covered with oiled silk, also failed.

The following plan of treatment I have employed in four cases of ichthyosis, in three of which the disease was local, being confined to the lower extremities in two, and engaging the upper also in the third, and in these the recovery was complete and permanent; in the other the integuments of the body generally, except the face, the palms of the hands, the soles of the feet, and some patches of the trunk, were affected with the disease, which commenced five months after birth, and was of three years' duration when I first saw the child. Here, after a year and a half of treatment, the epidermis had regained a tolerably healthy condition, being only slightly hard and rough; but if the local applications were omitted for four or five weeks, it again began to present a somewhat thickened appearance; this case is, consequently, still (1852) under treatment. The remedies I used were the iodide of potassium and iodine, from one to two grains of the former, and from a sixteenth to an eighth of a grain of the latter, according to the age of the child, given once daily, in from one to two ounces of the decoction of elm bark, made with the recent inner bark, stripped from the growing tree; and an ointment, containing twenty grains, gradually increased to one drachm, of the iodide of potassium, a drachm of glycerine, and an ounce of prepared lard, with which the affected parts were well anointed morning and evening; an alkaline bath—one drachm of carbonate of soda to each gallon of fresh water at the temperature of 90° Fahr.—having been used for fifteen minutes previously to each inunction, the body being well rubbed by a flesh-brush while in the bath. An inner calico dress was worn constantly, and milk-diet was strictly enforced. I have had no opportunity, however, of trying the effects of this method of treating ichthyosis in adults, the four cases in which it proved so successful being children below the age of eight years.

MOLLUSCUM.

Molluscum ; Comedones, of some modern writers; Ephyra mollusciforme, of Erasmus Wilson.—See Plate XI.

MOLLUSCUM.—The origin of the employment of this term to designate a disease of the cutaneous structure, which is chiefly interesting in consequence of its extreme rarity, has been a matter of discussion. Used by Willan and Bateman at a time when they themselves, not having seen the affection, obtained their knowledge of it from the account of a case—published in 1793 by Ludwig—that occurred in the practice of Professor Tillesius, of Leipsig, it is most natural to infer that its application was derived from the description therein contained, in which small tumors that constitute the disease are said to consist in “verruis mollibus sive *molluscis*,” yet nearly all the French dermatologists ascribe its employment to some imaginary resemblance between them and the minute excrescences that form on the bark of the maple tree. It is characterized by the development on the skin of round, slightly umbilicated, soft tumors, varying in size usually from that of the head of a pin to that of a nut, but described as occasionally acquiring the magnitude of a pigeon’s egg; they are of a yellow or pinkish-white color, sessile, rarely pedunculated, scattered irregularly over the surface, yet occurring not unfrequently in small groups, of slow growth, and unattended with either local pain or constitutional irritation. When pressed between the fingers, a small quantity of a thick, whitish fluid exudes from the minute aperture that forms the umbilicated apex of each tumor, the exudation being evidently altered sebaceous secretion. They appear on all parts of the cutaneous surface, but are most frequently witnessed on the face, and most rarely on the extremities; their duration is uncertain, in some cases ulcerating and falling off spontaneously, their site being marked by a slight cicatrix, in others lasting for life, without undergoing any increase in size, but the skin covering them becomes darker colored or brownish, and the tumors themselves acquire a certain degree of hardness. The internal structure of

the tumors of molluscum is cellular, a transverse section often exhibiting five or six divisions, each of which corresponds to a duct of the sebaceous follicle, and contains altered sebaceous matter.

Bateman, after witnessing some cases of the disease, described it as consisting of two varieties, which he named molluscum *contagiosum* and molluscum *non-contagiosum*, but inasmuch as it is doubtful that the latter, as described by him, was truly molluscum, and at all events as the distinction he drew cannot be regarded as sufficient to constitute a specific difference, his division must be abandoned. The eruption consisting admittedly in a hypertrophied state of the sebaceous follicles, and being therefore of the same nature, anatomically considered, as Acne, some recent French writers, especially MM. Caillault¹ and Bazin,² have regarded molluscum as a species of that disease, the former terming it *Acne molluscoides*, and the latter *Acne varioliformis*; the absence of local inflammation, however, clearly distinguishes it from that affection. The best division of the disease, I consider, is that proposed by Dr. Craigie, in an able essay published in the seventy-fifth volume of the *Edinburgh Medical and Surgical Journal*, namely, into

Molluscum acutum.

“ chronicum.

Acute molluscum (Plate XI, Fig. 5) agrees, in all respects, with the form which is generally regarded as being contagious; it occurs usually on the face and neck of children, and from them is conveyed to adults, almost invariably, however, of the same family. It is developed at first in the form of minute papulæ, scarcely noticeable, and unattended with any local symptoms; these gradually increase, until, in from six weeks to two months, they attain the size of a small currant, which they resemble much in shape, being somewhat pellucid, and sessile on the portion of integument from which they grow. Their duration is seldom prolonged for more than six months,

¹ *Archives Générales de Médecine*, 1851, Vol. xxii. pp. 46 and 316.

² *Journal des Connaissances Médicales*, 1851, p. 277.

but their progress is often more speedy, terminating either by ulceration, which first commences at the apex, an opening being there formed through which the altered sebaceous matter contained in them is discharged, when the small tumors collapse and shrink away, or by an attack of local inflammation, when they slough off, leaving a pit like that resulting from smallpox. In most cases the molluscous growths are developed in successive crops.

In *chronic molluscum* (Plate XI, Fig. 6)—the *molluscum pendulum* of Willan—the tumors, which are more generally distributed over the surface of the body, attain a much larger size, and are more frequently pedunculated; they are sometimes very few in number, may even be solitary, but occasionally several of them are developed on different parts of the integument at the same time. This form is most frequently witnessed in adults, and runs an essentially chronic course, lasting often for life if uninterfered with, yet with but little increase in size. Occasionally, as in the acute variety, inflammation attacks some of the tumors, and they slough off.

The chronic and acute forms of molluscum differ especially, to use the words of Dr. Craigie, “in the circumstance of the latter being propagated by a specific matter, while the former is, so far as is hitherto known, entirely incapable of such communication.” This contagious property, though its existence is denied by many modern writers on the disease, is, I think, too well established by the numerous cases which have been recorded by Bateman, Craigie, Thompson, Carswell, Henderson, Willis, &c., to admit of doubt. M. Caillault, in the essay on disease published by him, to which I have referred above, states that he himself did not believe in its contagious nature until it was proved to him in April, 1851, in one of the wards of the Hôpital St. Louis, at Paris, fourteen children out of thirty having taken the disease in the course of three months from a little girl who had been admitted with numerous molluscous tumors on the face. Mr. Erasmus Wilson, while denying the communicability of molluscum by contagion, narrates a case in which one child of a family having been brought to him affected with the disease, it appeared in a few weeks after-

wards in the mother and two other children, an infant, and a girl six years old; he adds: "I quieted her alarm relative to contagion, but was much struck by the fact of the almost simultaneous appearance of the disease upon four members of the same family."¹ Dr. Tilbury Fox seems to incline to the contagion view; M. Hardy believes the disease to be parasitic; and M. Caillault, in his work on *Diseases of the Skin in Children*, published subsequently to his essay above referred to, is not so satisfied as to the contagious nature of the affection as he had previously been. In his work just noted he gives the *fullest* information on the subject, which he leaves *sub judice*. See also Dr. Paterson's observations in the fifty-sixth and Dr. Cotton's in the sixty-ninth volume of the *Edin. Med. and Surg. Journal*. I have myself witnessed two instances in which the acute form of this affection was communicated by children to adults, in each case members of the same family. I have, therefore, no doubt in my mind as to its possessing the property of being propagated by *direct contact*, as from persons sleeping together, or in the case of children while at play.

As regards the *causes* of molluscum, in either of its forms, but little is known; the acute variety is most frequently met with in children of the female sex, rarely occurring in adults unless when it is communicated to them by children; the chronic form, as already remarked, is generally witnessed after the age of puberty, and is not unfrequently connected with a deranged condition of the general health, while the former occurs in the most healthy individuals, the skin of those affected, however, is usually fine and soft.

The *diagnosis* of this disease is unattended with difficulty; from warts, for which the little tumors might be mistaken, they are distinguished by their shape, their softness, their color, and the central depression at their apex; from fatty or other pendulous tumors, in addition to these characteristics, their slow development of growth aid as diagnostic marks.

Prognosis.—The chronic variety of molluscum may

¹ On *Diseases of the Skin*, Third Edition, p. 387.

last for life without the least injury to health or impairment of the constitution, but occasionally troublesome symptoms may arise from attempts made to destroy or remove the tumors. In one instance, communicated to me by Dr. Lees, the case of a female, aged 18, who was under his care in the Meath Hospital, the application of potassa fusa was followed by erysipelas, which terminated fatally. Acute molluscum generally disappears spontaneously in from four to six months.

Treatment.—Internal remedies do not appear to have any effect over molluscum, and are therefore not required in its treatment, except such as may be calculated to restore a healthy condition of the system generally, should it be deranged. Local applications are not advisable in the chronic variety of the disease, but the tumors may be snipped off with a sharp pair of scissors, and the surface then touched with lunar caustic, provided the patient be in a state of good health; but when such is not the case this should first be attended to. In the acute form, the employment of a slightly stimulating lotion, as of sulphate of zinc or sulphate of iron, ten grains of either to an ounce of distilled water and a drachm of rectified spirit, hastens the throwing off of the small tumors.

STEARRHŒA.

Stearrhœa, from *στέαρ*, tallow or suet, and *ῥέω*, to flow.—See Plate XII.

STEARRHŒA is a disease of the sebaceous follicles, characterized—as the words *στέαρ* and *ῥέω* indicate—by augmented secretion and discharge of their natural contents, the follicles themselves, and their excretory ducts being at the same time somewhat hypertrophied. The increased secretion may consist merely in an excessive amount of the natural oily matter or smegma destined for the preservation of the skin from external irritants, or in its discharge on the cutaneous surface in a vitiated condition, where it concretes and forms a thick adherent layer, varying in color from a rich yellow hue to nearly black. The former is of very frequent occurrence, and can scarcely be regarded as constituting a disease, while the

latter, a rather rare affection, is of extreme obstinacy, usually resisting treatment for years. Three varieties of the disease, thus constituted, require to be noticed:—

Stearrhœa simplex.

“ flavescens.

“ nigricans.

Stearrhœa simplex (*Sebaceous flux*) is marked chiefly by an oily or greasy state of those parts of the integument in which the sebaceous follicles are numerous, as the nose, the cheeks, the ears, the scalp, and other regions where hair grows; it is an accompaniment usually of a coarse, sallow condition of the skin, and is generally witnessed in a class of persons who are liable to be affected with acne, as noticed in the description of that disease. The orifices of most of the sebaceous follicles are usually much dilated, but others, becoming obstructed, present the appearance regarded as being characteristic of acne punctata. This state of the cutaneous surface is manifestly hereditary in most cases, and is a constant accompaniment, or rather may be regarded as a sign of the scrofulous diathesis; it lasts generally during life, appearing in youth, but being less marked in old age; and although indicative, cannot be considered as a cause, of an unhealthy constitution; when it exists, the natural perspiration is deficient in quantity, and congestive or inflammatory affections of some of the internal organs, assuming, however, a scrofulous character, are more apt to occur.

Stearrhœa flavescens (Plate XII, Figs. 1 and 2).—It is only of late years that this affection, which is of rather rare occurrence, has attracted the attention of dermatologists; Rayer was the first to describe it under the name of sebaceous flux, and after him it was specially noticed by Bielt, who, regarding it correctly as dependent on a diseased condition of the sebaceous follicles, although admitting the difference which exists between it and the true pustular acne, made it a species of that eruption, under the name of acne *sebacea*. Erasmus Wilson gives an illustration of the disease in his beautiful Portraits of Diseases of the Skin, where he terms it

Inflammatio Folliculorum, while in his octavo work he describes it under the name I have adopted.

It is characterized by an exudation from the sebaceous follicles, of their natural secretion, more or less altered, on the surface of the skin, where it forms a yellowish or greenish-yellow crust or layer—in the former case resembling the cerumen of the ear, of variable thickness and consistency, at times so soft as to be readily wiped off, but more generally hard and firmly adherent. By exposure to the action of the atmosphere the effused matter gradually acquires a darker tint, presenting at length a brownish hue, and numerous cracks or fissures divide it into small packets, which often correspond with the linear markings of the skin. The portion of integument on which the diseased secretion had been seated, if examined after its removal, is found to be more or less injected, not unfrequently inflamed, and the sebaceous follicles hypertrophied, with their orifices enlarged and filled with the peculiar matter, the presence of which constitutes the disease. The crusts on the surface are rapidly renewed after their removal, and, if uninterfered with, soon form a layer three or four lines in thickness. The parts affected are the seat of sharp tingling, occasionally of stinging pains, accompanied by heat and itching. There is generally also a deranged state of the health, evidenced more especially by the condition of the digestive organs, in those persons on whose skin the disease appears; and from its occurrence most usually on the face, causing, in consequence, much disfigurement, great mental distress is occasioned.

Stearrhœa flavescens, as is evident from the description now given, is an affection of the sebaceous follicles, and is, therefore, witnessed only on those regions of the skin where these glands exist, being of most frequent occurrence in the parts in which they are most numerous; it therefore appears usually on the nose, the cheeks, the eyelids, the ears, and the scalp, but is also seen occasionally on other portions of the integument. Mr. Wilson states it to be most frequent on ladies' faces. It runs essentially a chronic course, spreading, in general, but slowly

from where it is first developed, and, if removed by artificial means, being again quickly reproduced.

Stearrhœa nigricans (Plate XII, Fig. 3¹), although differing from the form now described apparently only in the color of the effused diseased secretion, which is nearly jet black, deserves a special notice in consequence of the singularity of the appearance which it presents, and its extreme rarity. In it the matter discharged from the follicles is of a thinner consistence than in *stearrhœa flavescens*, and is from the first of the same dark color, which, moreover, stains linen, or any other substance with which it may come in contact. From the few cases of the disease which have been recorded it would appear also to be attended with more local irritation, at times amounting to severe pain and burning heat. In the twenty-eighth volume of the *Med.-Chir. Transactions* a case is reported in which the skin was so sensitive that the patient, a young lady, had to give up the attempt to wash away the secretion. Its occurrence is accompanied by general constitutional disturbance, and in one case recorded by Mr. Teevan,² which had been first under the care of Dr. Read, of Belfast, if the secretion of the diseased matter on the surface was arrested by local treatment, black vomiting, and the discharge of a black substance from the bowels and kidneys, took place immediately. The black secretion in this patient, a young lady, was analyzed by Dr. G. O. Rees, and found to consist of carbon, iron, lime, albuminous matter, fatty matter, and alkaline chlorides and phosphates. It sometimes (as in Dr. Neligan's illustration, Plate XII, Fig. 3) gives the patient the singular appearance of having what are popularly called *black eyes*; and Mr. Wilson draws attention to a case published by Mr. Yonge, in the *Philosophical Transactions* more than a century since, in which the face turned suddenly black, and this frequently during the twenty-four hours. The case is detailed at length, and in

¹ This illustration is from a case detailed by Dr. Neligan in the nineteenth volume of the *Dublin Quarterly Journal*, where will be found a lengthened statement of his views as to the nature and pathology of this disease.

² *Medico-Chirurgical Transactions*, Vol. xxviii. p. 611.

the words of Mr. Yonge, in the *Student's Book of Cutaneous Medicine*, page 464. The instances of this peculiar affection which have been published were seemingly more obstinate than the second form of the disease which I have described: it was in all of them situated on the same region of the skin.

The *causes* of any of the forms of stearrhœa are very obscure; the first is both congenital and hereditary, but the others have not been proved to be either; they appear only in persons who have attained the age of puberty, and are very rarely witnessed in advanced life, yet I have seen one example in which stearrhœa flavescens was developed on the nose after the age of seventy; they occur, too, with much greater frequency in females than in males, and in the former their connection with suppressed menstruation, or uterine derangement, has been in some instances noticed; but in the majority of cases their development is preceded and accompanied rather by derangements of the digestive organs.

Diagnosis.—Stearrhœa simplex cannot be confounded with any other affection of the skin; the other forms, however, in consequence chiefly of their rarity, are often not recognized when they occur, and therefore occasion much doubt as to their nature. Thus, an account of five cases of what, from the description and accompanying illustrations I conceive to be stearrhœa flavescens, has been published by Drs. Addison and Gull,¹ but denominated by them *Vitiligoidea plana* and *Vitiligoidea tuberosa*, from a supposed correspondence between the affection and the incorrect definition of vitiligo which was given by Willan; and the case of Mr. Teevan, before referred to, was originally communicated to the Medico-Chirurgical Society of London, as being an example of Pityriasis nigra.

Prognosis.—Stearrhœa flavescens and Stearrhœa nigricans are both most obstinate affections, and appear to be equally rebellious to all plans of treatment, but are chiefly important in consequence of the disfigurement which they occasion, being not in the least degree

¹ *Guy's Hospital Reports*, New Series, Vol. vii. p. 265.

attended with any danger to life. In the former, I have seen the sebaceous follicles take on an active inflammatory action when caustic applications were applied to the diseased surface, and indolent pustules form, which, on the continuance of the irritation, terminated in obstinate ulcers, with hardened elevated edges.

Treatment.—The first and most important point to be attended to is the restoration of a healthy condition of the system; this is best effected by the internal administration of alteratives, combined with alkalies, such as the hydrargyrum cum cretâ with dried carbonate of soda, or cod-liver oil with lime-water, according to the circumstances of each case; the latter combination is readily taken in milk, from one to four drachms of the oil being given three times daily, in one ounce each of lime-water and new milk, previously mixed. As soon as the state of the digestive organs is improved, or the menstrual function restored, preparations of iodine—especially the syrup of the iodide of iron, or the iodide of potassium, in some tonic vegetable decoction or infusion—will be prescribed with benefit. Of course the employment of purgatives, when requisite, should not be omitted. The local applications that are found most useful are gently stimulating and astringent lotions and ointments. The affected surface should be sponged three or four times a day with the spirituous lotion recommended for acne simplex (see page 177), an ointment containing ten grains of the iodide of potassium to the ounce of cold cream being applied at night, or a solution of the iodide of iron—two grains to the ounce of rose or elder-flower water, and dilute citrine ointment may be used. No matter what remedies, however, are employed, they must be continued *for a very long time*, and local means will be found unavailing until the general health is restored. The application of caustics *I have invariably seen productive of injurious consequences*. When the crust of effused sebaceous matter is hard, dry, and adherent to the surface, it should be removed by the application of poultices or of water dressing, previously to the use of topical remedies.

ELEPHANTIASIS.

Elephantiasis, *ἐλεφαντίασις*; Leontiasis and Satyriasis of the Latins; Elephant skin disease.—See Plate XII.

The term ELEPHANTIASIS has been applied, both in ancient and modern days, to designate two perfectly distinct diseases of the integuments; the one, which has been specifically denominated elephantiasis *Græcorum*, is by some believed to be the true lepra or leprosy of antiquity, and is the leprosy of the middle ages; while the other, which, from having been first accurately described by the Arabian physicians, has been termed elephantiasis *Arabum*, does not bear the least analogy to it. Both have been but rarely seen in these countries in modern times; though the former still prevails in India, Africa, Greece, Spain, Norway, and Iceland.

ELEPHANTIASIS GRÆCORUM (Plate XII, Fig. 4) is characterized by the development on the integuments of numerous globular tumors, varying in size from that of a pea to that of an apple, soft and yielding to the touch, at first of a dusky or livid hue, but afterwards becoming brownish-yellow or of a bronzed tint. They occur most usually and in greatest number on the face, but may appear also on every region of the body; the skin of the part affected is much hypertrophied, raised into irregular elevations, and of an unhealthy, diseased appearance, causing the sufferers from the disease to present a hideous aspect, described by those who have witnessed it to be revolting in the extreme, whence they have in all ages been regarded with abhorrence, as individuals specially afflicted. Both mind and body share at length in the local disease, the senses become obtuse, fatuity creeps on, and all the bodily functions are deranged. Eventually the tumors ulcerate, exude an ichorous matter, and form unhealthy open sores; the bones soften, and become affected with caries; mortification not unfrequently attacks the smaller joints, and death soon terminates sufferings which are extreme.

It is probable that the persecuted wretches mentioned by classic authors as affected with *satyriasis* had this disease; and it was sometimes called *leontiasis*, from the

frowning and formidable aspect of the subject of it being supposed to resemble the lion as well as the elephant. Thus Aretæus, describing it, says "it is disgusting to the sight, and in all respects terrible, like the elephant;" and Avicenna affirms "it renders the countenance terrible to look at, and somewhat of the form of the lion's visage." The learned Dr. Mead (see *Medica Sacra*) thinks it was the disease of Job, and so does Dr. Mason Good. The comparison of Job's disease, as described in the Sacred Text, with the above description will tend to confirm this view; and the phrase "lazar-house," synonymous with "leper-house," was, probably, derived from the inmates of such a place being presumed to have the disease of Lazarus. In some MSS. of the English leper-houses the inmates are described as "Elephantuosi;" and Lucretius, following the common opinion of his time, ascribed the origin of the disease to Egypt:—

"Est Elephas morbus, qui propter flumina Nili,
Gignitur Ægypto in mediâ, neque præterea usquam."
De Rer. Nat. VI. 1112.

Dr. Simpson, of Edinburgh, published, in *The Edinburgh Medical and Surgical Journal*, Vols. LVI and LVII, a series of learned papers, entitled "Antiquarian Notices of Leprosy and Leper Hospitals in Scotland and England." From information collected by him from English and Scottish MSS. and records—from Dugdale's *Monasticon Anglicanum*, Semler's *Historiæ Ecclesiasticæ Selecta Capita*, Schilling's *Commentio de Leprâ*, and other authorities—he shows that a disease, popularly known as leprosy, was everywhere endemic from the tenth to the sixteenth century; that against it princes and courts enacted laws and popes issued bulls, particularly Alexander III, who issued a famous bull—"De Leprosis"—regarding the ecclesiastical separation and the rights of the infected. A particular order of knighthood, that of St. Lazarus, was instituted to care for the sick, particularly lepers, one of whom they had to elect as their master, until countermanded by Pope Innocent IV. They separated from the Knights Hospitallers about the twelfth century.

In the middle ages leper hospitals were common everywhere. In 1226 there were 2,000 of them in France, limited as its territorial extent then was, while in England they were numerous and wealthy. They were receptacles for infected persons—not medical institutions, because the disease was considered incurable—and were mostly religious establishments, under the sway of some neighboring abbey. By papal order they all had chapels and ecclesiastics. Thus, in the leper hospital of S. Giles, at Norwich, there were a prior, eight canons regular, two clerks, seven choristers, and two sisters, to minister to the wants of eight bedridden lepers. At Illeford, in Essex, they had very hard religious duties, continual prayers occupying them from early morn to near midnight; and at St. Julian's, at Saint Alban's, Abbot Michael made some very significant rules "*de accessu mulierum.*" From the extant laws of Sherburne Hospital, it seems that refractory lepers were occasionally chastised with the birch, "*modo scholarium.*" The lepers had abundant and good diet and clothing; and, from some extracts from MS. diet rolls and clothing lists of the lazar-houses, it would seem that not only were all their wants provided for, but that sanitary rules of the best kind prevailed among them. They were often regarded as objects of compassion, and yet were often persecuted. Thus kings and queens used to visit them, wash, and sometimes kiss them, to exhibit pious humility; while, on the other hand, Philip V. and Charles VI. of France enrolled themselves among scoundrels of the first water by burning these poor wretches alive, to grasp their hospital endowments. Dr. Simpson proves that this disease existed in Europe before the Crusades, and was not brought to England by the returning warriors, as is generally supposed, since leper-houses existed in various places long before the occurrence of the first crusade of Peter the Hermit. The largest leper hospital in England was at Sherburne, near Durham, and was built by Bishop Pudsey in 1181. In the sixteenth century, when this disease had nearly disappeared, secondary cases of the then new disease—syphilis—were largely admitted to the leper hospitals, which at that period

were almost empty. In Scotland the lépers used a rattle to warn persons of their approach, and some similar usage prevailed in Italy. By English law they were classed as idiots, or insane, were counted dead, and could not inherit. The church performed burial rites over a leper on his admission to hospital; he was clothed, and in every respect treated as a corpse in *foro ecclesiæ*. In France, until lately, the rituals retained the offices for the separation of the leper from the living. They appear to have been most touching, and must have been heart-rending to the miserable outcast. They were concluded by the significant act of throwing a shovelful of earth on the leper.

Although Dr. Simpson refers to *Ledwich's Antiquities of Ireland* as giving information respecting leper houses in this country, the Editor has not found account of any such; all Ledwich says is that the ancient Irish were subject to leprosy; contracted, according to general opinion, from their constant use of raw meat; and that *aqua vite*, or whiskey, was held in great repute among them as an unfailing specific for its cure. Hence, perhaps, the national attachment of our countrymen to that useful medicine.

A leper hospital stood on the rising ground north of Townsend street, formerly called Lazar-hill, in this city. The Editor is indebted to Sir William Wilde, who kindly drew his attention to his *Report on the Status of Disease* (one of the Blue Books of the Irish Census of 1851), p. 90. In this may be found most of the known information about Irish lazaret-houses, which were numerous in Munster, and which, as in England and Scotland, were connected with monastic establishments. From his Blue Book, "Tables of Deaths" of the same census, it appears (p. 419) that beside those in Dublin, already noted, and in Cork and Waterford, to which further reference shall be made, there were leper hospitals in Galway, Co. Limerick, Dungannon, Wexford, and Kilbixy Co. Westmeath. Most of this information is derived from Dr. Gerald Boate's *Natural History of Ireland*, first published in 1652, and from Archdall's *Monasticon Hibernicum*. The reader will do well to consult Sir William

Wilde's able reports, which the Irish people can never sufficiently value.

Sir William is of opinion that the Irish disease was elephantiasis.

In Waterford there was a leper hospital, which, though now used as an infirmary, is still known by its ancient name. The last recorded case of an Irish leper was found in it in 1775. There was formerly a "Leper's Old Hospital of St. Stephen's" in Cork. It was governed by a prior; and later (temp. Ric. II, and Hen. IV) by a guardian appointed by the King. It gave place to the parish church of St. Stephen, to which was attached, as an endowment, the landed property of the leper hospital. This parish, with some others, was ultimately incorporated into the parochial union, now known as that of S. Nicolas, while Baron Worth's Blue Coat Hospital was built on the site of the church. It is still known as S. Stephen's Hospital.—Caulfield's *Sigilla Ecclesiæ Hibernicæ Illustrata*, pp. 28, 29.

Mr. Erasmus Wilson (*Diseases of the Skin*, Fifth Edition) says the earliest records of this disease in Great Britain are those of the Welsh King, Hoel Dha, A. D. 950. In 1547–1553 (Edw. VI) a commission for suppressing colleges, hospitals, &c., reported most of the leper-houses as empty.

Dr. Simpson remarks that the earliest house in Scotland dates at 1150; and so late as 1604 a leprous woman was ordered into a lazaret house at Aberdeen, by the town council; whilst there was a leper patient in the Edinburgh Infirmary in 1798. Mr. Erasmus Wilson says it still exists among us as morphea (1, tuberosa; 2, alba atrophica; 3, nigra; 4, alopeciated), and that it has always existed in the north of Europe. Dr. Edmonston, of Lerwick, quoted by Dr. Simpson, says that it "was in Zetland sixty years ago (before 1848), and still is in Iceland and the Faroe Islands." So great a plague has it been in Sweden and Norway that a government commission investigated it, and the result is the best book on the subject (*Traité de la Spedalskhed ou Elephantiasis des Græcs*), by Dr. Danielssen, of Bergen, and Dr. Boëck, of Christiana, published at Paris in 1848.

Dr. George Macleod, of Glasgow, author of the scholarly and delightfully written book, *Notes on the Surgery of the Crimean War*, was in Iceland in the summer of 1863. In answer to a letter from the Editor he thus writes: "I saw a few cases (four) of leprosy when in Iceland, and was told by the chief surgeon (a government official as they are all) that it was very common, and all of the tubercular variety. The gentleman I refer to, and whose name was Hjaltelin (a most intelligent, well-read man he is), attributes the disease to dirt, badly ventilated house, and an unvarying diet; and if such causes are capable of producing this disease, I can speak for their powerful activity in Iceland. You are, perhaps, not aware that some years ago I paid some attention to the disease you write about, and that in Spain, Africa, and Palestine I saw much of it. I have always intended to give form to the scattered notes I possess upon it. There are now no leper hospitals now *in use* in Iceland, though the buildings remain, but the disease is still very common. By improving the hygienic condition of young persons Hjaltelin has arrested the complaint."

Dr. Mason Good states that this disease has been noticed by various travellers as existing in India, Madeira, and the Isle of France.

Dr. T. More Madden, of this city, remarked to the Editor that he had seen much of it lately in Spain; and in Tangiers, where the tubercular disease exists side by side with the skin affection. The latter prevails among the Jew residents, and his description of the ulcerated leprosy, as he saw it, was *totidem verbis*, that of the Levitical canon. He also remarked that it altered the countenance very little, except destroying the eyebrows; and the women remedied this defect by the use of certain pigments. The valuable treatise of Drs. Danielssen and Boëck on the SPEDALSKHED, of Norway, has already been noted. They believe it to be identical with Elephantiasis Græcorum; and they affirm that it is not the *Radesyge*, a Norwegian disease, with which it has sometimes been confounded. Elephantiasis, or Spedalskhed, is by them divided into E. *tuberculosa*, and E. *anæsthetica*. The former answers to the description already given;

the latter is characterized by the appearance of large *bullæ* seated on livid patches; these break, and leave ulcers on which crusts subsequently form. After a while, though not uniformly, white patches, accompanied by itching, diminished sensibility, and slight desquamation, appear irregularly scattered over the body. Hyperæsthesia and periodic shiverings follow, to be succeeded in turn by a gradual, but finally extreme, and sometimes general anæsthesia. The affected parts only are dry; the conjunctivæ are injected; vesicles form over them; the lids become atrophied; the lashes fall away; the nasal mucous membrane dries up; ulcers form and destroy the septum; partial paralysis ensues; and occasionally a spot forms on the sole of the foot, becomes blue, ulcerates, and seldom heals. The bones and periosteum generally escape. Death is preceded by diarrhœa and sometimes by tetanic spasms. During the progress of the disease there is extreme thirst, occasional vomiting and pyrosis, with a feeling of cold, torpor, and drowsiness. In anasarcaous cases, which are sometimes met with, the urine is albuminous. The disease is frequently complicated with scabies, eczema, and other skin affections; it is endemic and hereditary, but is *not* contagious.

As to *treatment*, mercurials and arsenicals are declared *mischievous*,¹ while iodine, bromine, cod-liver oil, stimulant baths and ointments have been found occasionally useful. Bleeding has been also recommended, but either form of the disease must be considered hopelessly incurable. Such of our readers as may not have access to the valuable work of Drs. Danielssen and Boëck, or the French translation of it, will find a critical analysis of it, of considerable value in the *Brit. and For. Med.-Chir. Rev.*, Vol. V (1850), p. 171.

In Ranking's *Abstract*, Vol. XLI, p. 77, will be found an abstract of Dr. H. V. Carter's most valuable paper on "Leprosy as seen in India."—See also the *Trans. of Bombay Med. and Phys. Soc.*, Vol. VIII (N. S., 1862), and *Brit. and For. Med.-Chir. Rev.*, Jan. 1863.

¹ *Per contra* see *Dublin Medical Press*, April 20, 1864, for the local treatment by arsenic producing *pustulation*.

Dr. Carter states that it prevails extensively in the Bombay Presidency, and he mentions three forms of it: 1. An eruption of the skin, allied to lepra, and accompanied by anæsthesia. This form he conceives to be the *Leuke*, of the Greeks; the *Baras*, of the Arabians; and the *Barat-lebana*, of the Hebrews; to it belongs the *Shvet-Kusta*, or white leprosy, of India. 2. The *Guleet Kusta*, or Sunbahiree, of the Hindoos; the E. Anæsthetica of Danielssen and Boëck. 3. *Ructa-Kusta*, *Ructa-pitia*, of the Hindoos; the E. tuberculosa already described.

Dr. Carter considers E. anæsthetica the typical and most invariable form, but he looks on them all as varieties of one disease, because they seldom occur separately, are almost always combined at certain stages, and different members of the same family may be affected with each. Contrary to Danielssen and Boëck, and others, he states that there are no special or invariable premonitory symptoms; the duration of the disease is from five to fifteen years; and according to the Norwegian writers nine and a half years. It mostly attacks males, and is limited to the lower classes of society. He also believes the disease to be a cachexia essentially related to syphilis; not transmissible by sexual intercourse, but clearly hereditary.¹

Mr. Erasmus Wilson believes it to be essentially a blood disease, and the researches of Carter, Danielssen, and Boëck, and others, would generally lead to a like conclusion.

The MORPHIE, of Brazil, has been considered a variety of Elephantiasis. Dr. Fox remarks of it, that "the tubercles do not form a prominent feature; the usual erythema is succeeded by bullæ; ulceration is rather the rule; indeed the disease presents rather the anæsthetic form."

FRAMBÆSIA (so called from its resemblance to a raspberry, *Framboise*), Sibbens, of the Scotch, and Radesyge, of the Norwegians, is an ally of Elephantiasis. It is scarcely ever seen in England; is met with occasionally

¹ In the *Medical Times and Gazette* for 1st April, 1865, Dr. Hillier details a case of Elephantiasis Tuberculosa treated by him in University College Hospital.

in Scotland, rarely in Ireland, but frequently in Africa and the West Indies. It commences with febrile symptoms, followed by an eruption of small flat papules, which sometimes attain the size of half an inch in diameter. This eruption prevails on the face, arms, groins, axillæ, and pudenda; becomes pustular in about ten days; a crust forms, and beneath it a sloughing ulcer. These ulcers appear simultaneously on various parts, and are sometimes accompanied by ulceration of the throat. The eruption may last from one week to about eight months. Emaciation, and debility; and frequently dropsy, supervene. The disease is believed to be communicable by contagion and inoculation, occurs once during a lifetime, prefers to attack the young, and appears to be produced by misery, deprivation, and filth, engendering physical deterioration, as in Elephantiasis.

It is *treated* by external stimulants, with internal tonics and nutritious food.

Elephantiasis occurring in Astrachan is called MORBUS TAURICUS, or lepra Astrachanica, "the black disease." It is noted as a distinct variety of tubercular Elephantiasis by Dr. Fox, who observes that, "the peasants attacked by it live very badly, eat stinking fish, and the like."—*Op. cit.*, p. 180.

THE ALEPPO EVIL, Boufon d'Alep, or Bouton of Biskra, has also been noted as a variety of Elephantiasis. Dr. Fox states that it is endemic at Aleppo, Bagdad, and on the banks of the Tigris and Euphrates. The affection itself does not seem to differ materially from Framboesia. It attacks every inhabitant of these districts, and is *not* contagious. When the tubercle is *single* the disease is called the *male*; when multiplied, the *female*. It is said to be caused by the use of bad drinking-water.

The New Zealanders are affected with a disease called NGERENGERE, which is by some believed to be an ally of Elephantiasis. From published accounts, it does not appear to be either tubercular or anæsthetic, but to be, in fact, a severe form of Psoriasis. As its minute discussion is beyond the scope of this work, reference may be made to Dr. Thomson's description of it in the *Brit. and For.*

Med.-Chir. Review for April, 1854. Dr. Thomson believes it to be of strumous, not of syphilitic, origin.

Dr. Fox remarks that a similar disease has been described as existing in Jamaica. It is there called CACUBAY, and is characterized by the presence of white spots near the ends of the extremities, which ulcerate. The bones are destroyed by a "*quasi-necrosis*," after which the sore heals up until the next attack.

A remarkable ally of Elephantiasis Græcorum is PELLAGRA, Mal de la Rosa, Mal de Sole, or Elephantiasis Italica. This disease prevails endemically in the south of France, and in parts of Spain, but chiefly in Lombardy, Piedmont, and Venetia. It attacks the poorer members of the community, and is believed to be a peculiar diathesis, with three groups of symptoms: 1, an erythematous change in the skin; 2, general failure of power and nutrition; and 3, cerebro-spinal symptoms. The eruption appears on those parts of the body which are more generally exposed to the rays of the sun. The skin, without swelling or roughness, becomes red, with slight desquamation, and subsequent dark discoloration. The eruption disappears during winter, but returns with the spring in an exaggerated form. Failing appetite, indigestion, and diarrhœa, accompany or precede the disease from the outset. The cerebro-spinal symptoms are headache, giddiness, defect in the special senses, cramps, gradually progressive paralysis, delirium and despondency. The mortality is said to be from three to fifty-two per cent.; and the intellect is permanently and gravely injured in those who do not die of the disease. It is not contagious, is often hereditary, is more frequent in women than in men, and it usually occurs between the ages of thirty and fifty. Exposure to the heat of the sun is believed to be one of its exciting causes, as is also exposure to strong artificial heat. The use of maize is also said to be favorable to its production, which, no doubt, mainly depends on the physical degeneration caused by poverty, as in the other diseases of this class. Some pathologists have found, after death, opacity and thickening of the arachnoid, with atrophy and induration of the spinal cord; while others have not found any such appearances.

The *treatment* may be said to be sanitary, and hygienic, and preventive. It is a poor man's disease, and improvement in the habits and supports of life constitutes the only sure safeguard against it.

For more full details see Dr. Gintrac's work, *De la Pellagre dans le Département de la Gironde*, Bordeaux, 1863. Dr. Fox in his work gives the substance of Dr. Gintrac's researches.

ELEPHANTIASIS ARABUM.

Elephantiasis Arabum.—Dal-fil (literally Morbus Elephas) of the Arabian writer; Bucnemia Tropica of Mason Good.

ELEPHANTIASIS ARABUM (*Barbadoes leg*).—Plate XII, Fig. 6.—The popular name for this singular affection indicates its frequency of occurrence in the West India Islands, where it is endemic, but cases of it are also witnessed in Egypt, in America, in various countries of Europe, and, as was remarked originally by Dr. Graves,¹ are not very uncommon in Ireland; it is, however, less frequently seen now than at the time his account of it was published, thirty-nine years ago.

The disease consists in an extreme degree of hypertrophy, affecting one or both of the lower extremities, the scrotum, the hands or arms, and occasionally even the face, and the mamma and pudendum in females; the enlargement affects equally the skin and the subcutaneous and deep-seated areolar tissue, so as to produce an enormous swelling of the part attacked, one of the legs not unfrequently exceeding in magnitude the girth of the body. It commences usually with symptoms of local inflammation chiefly engaging the lymphatic system, and general constitutional derangement; these attacks are of frequent occurrence, and after each, the parts engaged become more and more swollen, chiefly from effusion into the areolar texture; but in some cases, especially in temperate climates, the enlargement comes on slowly, and gradually augments without any apparent disturbance of

¹ *Dublin Hospital Reports*, Vol. iv. p. 54.

function, local or general. When the affection is fully developed, the integuments, which are enormously thickened, are generally of a whitish color, rough and swollen, and present deep furrows, occasionally the seat of ulceration, a thin, ichorous discharge, which concretes into hard, scaly incrustations, then issuing from them. To the great hypertrophy of the integuments is due the name of this disease, but in order to distinguish it from that last described, the term *Pachydermia*, first proposed by Fuchs, has been adopted by many modern dermatologists.

When the scrotum is the part affected, as it very frequently is in the colored population of tropical climates, it attains at times and enormous magnitude; Horner, in his *Medical Topography of Brazil*, narrates two instances in which the tumor situated there measured four feet in circumference. The upper extremities, when attacked by the disease, do not acquire as large a size as the lower, manifestly in consequence of their containing less areolar tissue. The palms of the hands and soles of the feet are never affected.

The *causes* of elephantiasis Arabum are altogether unknown, if we except its apparent connection with inflammation of the lymphatics; it is not contagious; it affects both sexes equally, and occurs at all ages, but is more frequent in adults than in children. Its much greater prevalence in hot countries, and its being more frequent there in those districts which are characterized by the presence of moisture, indicate the effect of heat and damp conjoined as an exciting cause.

There is no difficulty in *diagnosing* this disease in its advanced stages; in its commencement it might be mistaken for angeioleucitis, from which it appears to differ simply in its symptoms being less acute, and in its never terminating in the formation of purulent abscesses. Its *duration* is essentially chronic; but although its presence renders life a burden, it in very rare cases seems to prove fatal.

An anatomical examination of the parts in this form of elephantiasis exhibits the derma and epidermis usually much hypertrophied, the former sometimes constituting a layer an inch in thickness, but the enlargement of the

affected regions is due chiefly to the change in the areolar membrane, from the deposit sometimes of fat, but more usually of a substance almost as firm as fibrous tissue, and of a lardaceous appearance, which to the naked eye resembles the natural structure compressed. Lebert and Gustav Simon, who examined the new deposit with the microscope, found it to consist in fibrous bundles of pure areolar tissue, fully developed or in the process of formation, with numerous fat cells in the interstices.

Treatment.—In the early or inflammatory stages of elephantiasis Arabum, antiphlogistic treatment is clearly indicated, but this must be constitutional and not local; if a limb be the part affected it should be kept at rest and placed in the horizontal position above the level of the body. Active purging seems to have been the plan of treatment most successful in those cases which have been reported, and even in the chronic stages, when other remedies generally fail to prove beneficial, it has been useful. When the disease becomes chronic, iodine frictions and firm bandaging have also been recommended, but they usually fail to produce any manifest effect; amputation of the parts, if possible, has been then advised, and ablation of the hypertrophied scrotum has, in many instances, been resorted to with success; but as regards the limbs, the removal of one of them has been usually followed by the development of the disease in another; thus in a case reported by Cazenave, in which a leg, the seat of elephantiasis was removed, the arm became affected soon afterwards.

Professor Carnochan, of New York, originated the practice of ligaturing the main artery of the affected limb; and Mr. Butcher, of this city, believing Barbadoes leg to be a blood disease, performed the first operation of that kind in this country. In the thirty-fifth volume of the *Dub. Quar. Journ.*, and more recently in his large *Treatise on Surgery*, Dublin, 1865, p. 409, he details the successful ligaturing of the femoral artery in a case in Mercer's Hospital; and his example has been followed by others. See also a more recent case of "Elephantiasis of the Leg, Treated by Ligature of the Femoral

Artery," by Mr. Fayer, of Calcutta.—*Ed. Med. Journ.*, Nov. 1865.

THE LEPROSY OF THE HEBREWS (*Lepra Hebræorum*).

In the preceding remarks on *Lepra* or *Psoriasis* in Chap. VI, and on *Elephantiasis* in Chap. VII, no particular mention has been made of the Leprosy of the Hebrews. Modern writers, and particularly Mr. Erasmus Wilson, have revived the discussions of former times regarding this disease, and the general impetus given to the study of modern elephantiasis by the researches of Danielssen and Boëck, and of Carter, makes it desirable that a short dissertation should be here given on the vexed question, "What was the Leprosy of the Hebrews?" For a more full discussion of the subject the Editor must refer the reader to two papers of his in the *Dublin Quarterly Journal* for 1864 (May and Nov.), entitled respectively—"The Hebrew, Mediæval, and Modern Leprosies Compared," and "Remarks on the Hebrew Catalogue of Skin Diseases."

In the thirteenth chapter of the Book of Leviticus we find an exact description of three varieties of "leprosy;" and although the Arabic and Greek writers notice them all, yet it is difficult to identify their descriptions with those of the Levitical Canon. This proceeds, in a great measure, from the use of synonyms and inexact renderings of medical terms from one language to another, from the various terms applied in successive ages to the same diseases, and from variations and total changes in the meaning of some of them. The light which modern science has thrown on the origin and causes of leprous diseases, be they squamous or tubercular, will readily account for the generally received opinion, that the peculiar employments and hardships to which the Hebrews were subject during the last and most oppressive stage of their Egyptian bondage, rendered them peculiarly liable to contract the Egyptian endemic leprosy; and also that this predisposition was retained by them in their own land where it was, probably, in no small degree fostered by hereditary descent, to which all their laws and customs indirectly tended. Justin Trogus (*Hist. Lib.* XXXVI,

C. 2) and Tacitus (*Hist. Lib. V*) join Strabo, who followed the Egyptian historian, Manetho, in asserting that leprosy was communicated to the Egyptians by the Hebrews, who, in consequence of it, were driven out of the country; but Josephus (*Antiq. Lib. III, Cap. XI, Sec. 4*) plainly shows their statements to be incorrect, and solely the result of narrow prejudice. Whatever may have been its origin, it is quite clear that, when a free nation, the Hebrews had leprosy as an endemic; and respecting it we find some of the most remarkable of the enactments of their great lawgiver, Moses.

Following the Hebrew original, we find that Moses speaks of three varieties of "leprosy," to all of which he applies the generic term *Bahereth*, or bright spot; and divides them into—*Bohak*, or dull white, and two varieties of *Tsorat*, or malignant disease, viz., *Bahereth Kehe*, or dusky Bahereth, and *Bahereth lebhana*, or bright white Bahereth. *Bohak* was not seriously regarded by the Jewish law: "If a man also or a woman have in the skin of their flesh bright spots (*Bahereth*), *even* white bright spots, then the priest shall look: and behold, *if* the bright spots (*Bahereth*) in the skin of their flesh *be* darkish white; it *is* a freckled spot (*Bohak*) *that* groweth in the skin: *he* is clean." Lev. xiii. 38, 39. The second variety *Bahereth Kehe*, nigrescent or shadowed (*umbræ similis*, Celsus) leprosy, was more serious than *Bohak*; but the third variety *Bahereth lebhana*, or bright white leprosy, was the most serious of all. The pathognomonic characteristics of this disease were: "A glossy, white, and spreading scale upon an elevated base; the elevation depressed into the middle, but without change of color; the black hair on the patches, which is the natural color of the hair in Palestine, participating in the whiteness, and the patches themselves perpetually widening their outline."—Mason Good.

When any one of these appeared on a person he was brought before the priest; and if, in connection with such a blemish, the specific marks of a *tsorat*, or malignant leprosy, were found, he was declared unclean; or, in case of doubt, he was remanded for further examination. The disease, particularly the bright white variety, terminated

either favorably or unfavorably. In the former case it spread over the body without ulcerating, and, having run through its course, exhausted itself. In such case, while the scales were yet dry on him, the leper was declared clean, and restored to society. If the case terminated unfavorably, the patches ulcerated, producing quick and fungous flesh, and the patient was pronounced unclean for life. He was clothed and otherwise treated as one dead, while the Hebrew theocracy compelled him to forsake the haunts of men, proclaiming to all passers-by the hopeless and irrevocable sentence—"Unclean, unclean."

According to Dr. Mason Good, the Arabians still know *Bohak* by the same name and with the Levitical meaning. *Bahereth lebhana* they termed *Beras Bejas*; and *Bahereth Kehe* they termed *Beras Asvel*. The Greeks called *Bohak*, λέπρα ἀλφός; *Bahereth Kehe*, λέπρα μέλας; and *Bahereth lebhana*, λέπρα λευκή. In course of time the Arabians used *Bohak* and *Beras* indiscriminately, confounding their symptoms and qualities, and added a term of wider extent, *Kōuba*, designating scaly eruptions of every kind.

The Greeks derived their ψώρα—whence our term *sore*—from the Hebrew *Tsorat*,¹ but it soon gave place to the older term λέπρα, which is a synonyme of the Hebrew generic term *Bahereth*. In its secondary sense ψώρα was used to express scaly eruptions in general, and particularly the scaly state of the skin which sometimes accompanies scabies. The LXX, or translators of the Septuagint, use the generic term *lepra* indiscriminately. For example, the Hebrew tells us that the priest shall examine the *Bahereth*, or general morbid appearance, and if it have the specific marks which are accurately defined, it is a *tsorat* or malignant disease—i. e., either *Bahereth Kehe* or *Bahereth lebhana*. The Greek merely reads: "The priest shall examine the λέπρα, and if it have the specific marks it is a λέπρα." Not only was the Hebrew *Bahereth* translated into λέπρα by the LXX, but it also stands as *lepra* in the Vulgate; further, it is described by Celsus (Lib. V, cap. XXVIII, Sec. 19) under the name *Vitiligo*. It

¹ Or from ψάω or ψάω, to touch—See *Liddell and Scott's Lexicon*.

will be remembered that, in the time of Augustus Cæsar, Celsus collected the works of the principal Greek medical writers; and respecting this vitiligo, or lepra, he thus writes: "There are three species of it. It is named ἄλφος when it is of a white color, with some degree of roughness, and is not continuous, but appears as if some little drops were dispersed here and there. Sometimes it spreads wider, but with certain intermissions or discontinuities. The μέλας differs from this in color, because it is black, and like a shadow (umbræ similis), but in other circumstances they agree. The λευκή has some similitude to the ἄλφος, but it has more of the white and runs in deeper, and in it the hairs are white and like down. All these spread themselves, but in some persons more quickly, in others more slowly. The alphos and melas come and go off some people at different times, but the leuce does not easily quit the patient whom it has seized. The cure of the two former is not very difficult; the last scarcely ever heals."

Rhenferdus, an older medical writer, in his treatise, "De Leprâ Cutis Hebræorum" (to be found in Meuschen's *Nov. Test. ex Talm.*, illustr., pp. 1057, &c., classed D-dd, 32, in library T. C. D.) plainly proves from ancient authors, Talmudists and others, that lepra Hebræorum was a *scaly* disease denoted by every name implying cuticular eruption. He asserts that one pathognomonic sign—albedo præternaturalis—was common to all the species of it; and, quoting from Maimonides, he observes that "pilus albus, diffusio, et vivacitas" were the distinguishing signs observed by all Jews to mark the different varieties. He remarks that λέπρα (of the Greeks), "præternaturalis corporum albedo non longe recedit ab illa Maimonidis laudata;" and that vitiligo of Celsus "proxime accedere ad lepram Hebræorum;" that it is the alphos and melas of the Greeks, and the lepra in S. Matt. viii. In Schilling's *De Leprâ Commentationes* (Leyden, 1778) the author reprints the philologico-medical dissertation, "Phillippi Ouseelii, M. D., de Leprâ Cutis Hebræorum." In this treatise the points prominently remarked on by Rhenferdus are duly noticed. Thus, at p. 77, he observes: "Generale Lepre signum omnibus ejus speciebus com-

petens est; *Albedo præternaturalis*, externæ superficiei partis affectæ." He pursues this part of the subject at some length, and shows from numerous authorities that the *whiteness* was pathognomonic, and that in the different varieties of the disease it varied as the whiteness of snow varies from that of gypsum, which varies from that of wool, which again varies from the whiteness of a sheep's fleece.

The learned Mead, in his *Medica Sacra*, identifies the vitiligo of Celsus with lepra; Lorry (*De Morbis Cutaneis*, p. 373) remarks that the addition of the symptoms described by Celsus to those defined by Moses makes the identity of the two complete; Galen and Hippocrates considered leprosy and λεύκη¹ to be the same; and Dr. Mason Good, who has fully treated the subject, considers the description of Celsus to approach nearer to that of Moses than any other known to him. The word used by the LXX, λέπρα from λέπις *a scale*, also confirms the preceding remarks. Because of the *white* scales, it was likened to snow, and this where the disease was distinctly *penal* and therefore it may be presumed of the severest and most typical kind. Hence, it is recorded that the hand of Moses was leprous *as snow* (Exod. iv. 6); that Miriam became "leprous (white) *as snow*" (Numb. xii. 10); and Gehazi went out from Elisha's presence "a leper as (white as) *snow*" (II Kings, v. 27).

From what has been already stated it would appear that lepra Hebræorum was a white scaly disease, answering to Lepra or Psoriasis described in Chapter VI; and it may be asserted that *Bohak* was the *alphos* of Celsus, and the Lepra (or Psoriasis) guttata already described in Chapter VI; that *Bahereth Kche* was the *melas* of Celsus and the Psoriasis Nigricans of Chapter VI; and that *Bahereth lebhana* was the *leuce* of Celsus, and a very intense kind of psoriasis lepræformis already described. It must be borne in mind that the varieties of lepra detailed in Chapter VI are those occurring in this country in the

¹ The λέπρα λευκή, or white leprosy of Celsus, and the (substantive) λέυκη, or white cutaneous eruption of Hippocrates (*Prædict.*, Lib. ii., Sec. 2) are synonymous terms.

present day; and therefore that the difference of the Jewish disease in *degree*, but not in *kind*, is just what the history of that historic and oriental nation would lead us to expect. It has, however, been alleged, and not without some show of reason, that elephantiasis Græcorum was the leprosy of the Hebrews. As we have already seen, elephantiasis was the leprosy of the middle ages, and is called leprosy by many of the moderns; and not only so, but several of the ancient writers so confuse and jumble names and terms as to perplex the reader exceedingly. How this came to be so may be shortly explained.

The Arabian writers described elephantiasis Græcorum by the term *Juzam*, literally disjunction, or erosion; and they called elephantiasis Arabum *dal-fil*, literally *morbus elephas*. The Greek translators of the Arabian medical writings finding two diseases described by one name (their own elephantiasis, and the Arabian elephas of which they knew nothing) rendered both into the word *ἐλεφαντίασις* and, in common with some of the Arabians, deeming elephantiasis to be an advanced stage of lepra, they applied that term (*λέπρα*) to elephantiasis also; though the word *λέπρα* from *λέπις* a scale, is never mentioned by them except as a scaly eruption. This, as we should now call it, pathological error of deeming the one disease to be an advanced stage of the other, was readily copied by the Latins, until ultimately both diseases came to be placed in the same nosological order. In the present day, however, while it is contended that they are not in the same nosological order, it is at the same time urged that *λέπρα* and *ἐλεφαντίασις* were identical; and to support this view, a forced and unnatural construction is put not only on the Sacred Text, but also on the descriptions of Celsus and others. From what has been already advanced, it has appeared that the pathognomonic sign of the Hebrew leprosy was *a white scaly eruption*. In the Mosaic description we find nothing that at all likens it to the thick, rugose, tuberculate, or anæsthetic skin of elephantiasis, to say nothing of the other prominent symptoms of that disease, which find no counterpart whatever in the Mosaic description. So different, indeed, are the two affections that Mr. Erasmus Wilson, in his earnest

endeavors to explain the Sacred Text according to his views, does not seem to have satisfied himself, for he remarks: "The Sacred Writings usually exact and accurate in their description of events, are so confused on the subject of elephantiasis as to require to be put out of the pale of reference when treating on this subject; and the pages of the Greek and Arabian authors are equally uncertain." Also Dr. Henderson (*Iceland, or a Journal of Residence in that Island*) while calling the Icelandic elephantiasis Jewish leprosy, apologizes for Moses that he "has not noticed the very striking anæsthesia or insensibility of the skin, which is an inseparable attendant of the genuine elephantiasis." Now it may be noted that it is not Moses who is "confused," or who omits to "notice" an important symptom of a disease known for thousands of years, but his modern critics, who very illogically assume the truth of their own position, and then try by that standard the great Hebrew lawgiver and the fathers of medicine, who wrote of another disease altogether. Celsus' description of vitiligo, and his division of it into *alphos*, *melas*, and *leuce*, has been already referred to. This description, which appears plain enough, Mr. Wilson endeavors to accommodate in a rather strange manner to elephantiasis. The Editor is the more surprised at this because any reader of Celsus will see that among his descriptions of some fifty skin diseases there is no mention of elephantiasis. On the other hand, a full and very accurate account of it will be found in Cap. XXV of his third book, in which, be it observed, is no mention of any of what he considered cutaneous diseases. It is placed between descriptions of "*morbus arquatus*," and ἀποπληξία, and it is obvious to the reader that so far from Celsus having considered it to be the *leuce* of the Greeks described by him in his fifth book, he had no idea of elephantiasis being a skin disease at all; and so little did it resemble the *leuce*, or *bright white* leprosy, that of its pathognomonic signs he writes: "*Summa pars corporis crebras maculas crebrosque tumores habet; ruborearum paulatim in atrum colorem convertitur.*"

In Spain, elephantiasis is called *mal rojo*, from the

dark-red color of the skin; and in other countries it is named *mal noir*, clearly following the description of Celsus. After this it may well be asked, how can *mal rojo* or *mal noir* be identified with the bright white Bahereth of Moses, with the white scaly (λέπιδς) λέπρα of the LXX, or with the disease of Gehazi, who "went out from Elisha's presence a leper (white as) snow?"

From all this it is urged that the leprosy of the Hebrews and that of the middle ages (Elephantiasis) were as dissimilar as atrophy and hypertrophy, and as black and white can be.

The confusion of writers accounts for the contrary opinion in great part; and the fact of the tubercular disease, by Dr. Mead believed to be the disease of Job, being anciently supposed to follow the cuticular, and both being endemic in the East, would further tend to confusion in the minds of readers and writers.

How far the idea of Galen—that they were kindred diseases—may be found true it is not easy to say; but, like most remarks of the ancient keen observers, there is probably much truth in it; and Dr. Carter's recent researches point in that direction. Although *Lepra Hebræorum* and *Elephantiasis Græcorum* were different in their appearances, symptoms, and effects, yet if both be constitutional maladies, or the results of exposure to conditions unfavorable to health, there is nothing impossible or improbable in the opinion that elephantiasis may have found an easier victim in the Hebrew leper than in any one of sound constitution; for then, as now in Tangiers, both diseases existed side by side.

It is not within the scope of the question here discussed, to inquire into the alleged contagiousness of the Hebrew leprosy, or into its property of infecting clothes and houses. This part of the subject, and the other skin diseases of the Levitical Canon, are fully treated in the two papers of the Editor, already referred to; and the reader may consult with advantage the following authorities beside those already quoted: Dean Alford (of Canterbury)—*Greek Testament*—Note on S. Matthew viii; v. 1, 2, &c.; Archbishop Trench (of Dublin), *Notes on the Miracles*, p. 210; Robinson's *Biblical Researches in*

Palestine; the articles LEPROSY and MEDICINE, in Smith's *Dictionary of the Bible* (1863); Shapter's *Medica Sacra* (1834); and Bartholini (Thom) *De Morbis Biblicis Miscellanea*. This last curious treatise is to be found in Ugolini's *Thesaurus Antiquitatum Sacrarum* (Vol. XXX, p. 1521), published in folio, at Venice, in 1765; and classed Fag. W, 1-30, in the library of T.C.D.

VERRUCA.

VERRUCÆ (*Warts*), both in consequence of their appearance being familiar to all from their extreme frequency, and of their unimportance, scarcely require description; they consist in a hypertrophied condition of a small patch of the papillæ of the skin, by which a round tumor, with a flattened top, varying in size from that of the head of a pin to that of a large pea, is formed. They are of most frequent occurrence on the hands, next on the face, and are rarely witnessed on those parts of the body which are ordinarily covered. They are generally placed singly on the integuments, but occasionally two or three originate close to each other, and these sometimes coalesce. Warts appear in the early periods of life, being seldom developed for the first time in adults; they often disappear spontaneously, and even suddenly, at the approach of puberty, but sometimes, becoming indolent, are permanent.

Some persons are peculiarly liable to warts, and the tendency to them seems to be hereditary; their immediate cause has not been satisfactorily ascertained; but that it is more or less connected with local irritation, and the effects of the atmosphere on the skin, is evident from their being almost altogether confined to those parts which are ordinarily exposed to the action of the air. Small growths, soft to the touch and slightly pediculated, are of frequent occurrence on the face and neck, particularly of females, and are also regarded as a variety of wart; they appear to me to consist in the hypertrophy of a single papilla, but Mr. Erasmus Wilson believes them to be "the emptied tegumentary sacs of small sebaceous tumors."

Treatment.—Warts are easily removed by the application of some strong caustic—strong nitric acid is, in my opinion, the best—to their apex; the layer thereby cauterized should be pared off in twenty-four hours, and the caustic again applied, and this process repeated until the entire of the abnormal structure is destroyed; when the wart is small, a single application sometimes suffices, provided a large drop of the acid is placed on the apex, and permitted to soak into its structure. The soft pediculated warts are readily destroyed by strangulation, by means of a hair or a thread of fine silk being tied tightly round their neck.

CLAVUS.

CLAVI (*Corns*).—These excrescences, almost peculiar to the feet, being equally common, although causing a much greater degree of local uneasiness and suffering, do not require more notice than warts. They consist in thickening and hardening of the epidermis of some prominent portion of the integuments, usually over one or more of the joints of the toes, attended with hypertrophy of some of the papillæ beneath; the latter, which from the pressure acquire much hardness, are popularly believed to be the roots or core of the corn. They are regarded generally as being produced by pressure; but although they are kept up, and their growth increased by this mechanical cause, that they are originally occasioned thereby is, I think, disproved by their constant occurrence in the usual site on the feet of persons who have never worn shoes or other covering whereby pressure could be caused on the parts: of this I have seen numerous examples. Their development also between the toes, on a portion of the integuments especially protected from any undue compression, affords an additional argument against this view; that the extreme degree of hardness, however, which they usually present, and to which the local suffering they give rise to is chiefly due, is dependent on pressure, is proved by their being comparatively unindurated when situated here, whence they are termed *soft corns*.

Corns occasionally become the seat of active inflammation when irritated by any cause, or when they have been cut too freely, and afterwards subjected too soon to compression and friction by the shoes in walking; purulent matter then often forms beneath them, and, from its being firmly bound down by the hardened superincumbent tissues, extreme suffering results, followed sometimes by inflammation of the lymphatics and the formation of buboes in the groins; they have thus ended even fatally, from the occurrence of erysipelas, and in some instances from the supervention of tetanus.

Although, as above remarked, corns are almost invariably confined to the feet, they may also be developed on other parts of the body, but then they partake more of the nature of callosities; I have in a few cases seen them on the knuckles of the fingers in persons, too, in whom the hands were not exposed to any manual labor that could exert pressure on the parts affected.

The *treatment* of these morbid growths consists in their ablation, by means of the knife patiently and gradually employed, until all traces of hardened tissues are removed, and afterwards protecting the parts for some time from pressure; this is the only effectual remedy, and is the one always adopted by the self-styled chiropodists. The application of caustics never succeeds in destroying them completely, but is of use in enabling the hardened surface to be pared off without causing hemorrhage. Corns, whether hard or soft, may generally be kept in abeyance, as regards troublesome symptoms, by removing the superficial layers with the knife from time to time, according to the rapidity of their growth, or by rasping them with a file, the surface having been previously softened by maceration in warm water. Most of the corn plasters which are ordinarily sold in the shops contain carbonate of potash, the alkali of which dissolves partially the horny substance which constitutes the outer layer of the growth, or, a round hole being cut in the centre of each piece, they act by removing pressure from the most prominent point of the corn, which is directed to be pared previously to their application.

CALLOSITATES.

CALLOSITATES.—Callositates consist simply in thickening of the epidermis, which becomes of more or less horny consistence, produced by friction or continued pressure; they are usually witnessed on the palms of the hands or on the soles of the feet, when their cause is in general sufficiently evident. Occasionally they are attended with some degree of inflammation of the derma over which they are developed, which may result in the formation of pus or in the effusion of a serous fluid beneath the hardened integument. They are witnessed also over inflamed and enlarged bursæ mucosæ, especially on the metatarsal joint of the great toe, where they are manifestly produced by pressure from the boot or shoe, and their presence tends to aggravate and increase the original disease.

Their *treatment* in the chronic stage should be the same as that for corns; but when inflammation is present, cataplasms and soothing applications should be employed, and in all cases the exciting causes should of course be removed.

CONDYLOMATA.

CONDYLOMATA.—Generally the result of the syphilitic poison, but at times developed in persons in whom no such taint exists, these soft, fleshy tumors appear on those parts of the integument where the skin and mucous membrane meet, at the verge of the anus, on the prepuce, at the vulva, and occasionally, though very rarely, on the lips and nostrils. They are of a soft consistence, and a reddish-white color, varying in size from that of a pea to that of a marble, and have usually a broad base, with a flattened or rounded apex. They consist of numerous papillæ in a highly vascular condition, though apparently not much hypertrophied, and the epidermic covering is unchanged, except in being more vascular than in its healthy state. Various opinions have been propounded as to the nature of condylomata; Simon and Rokitsansky regard them as being a new formation,

consisting chiefly of areolar tissue, while Lebert believes that they are epidermic or epithelial growths.

Treatment.—They may be destroyed by the application of caustic, or strangulated with a ligature, which, by means of a needle, may be passed through the centre of the tumor, and then tied firmly at either side around the base.

NÆVUS.

NÆVUS (*Mother mark*)—Plate XIV, Fig. 1.—Of the several varieties of this adventitious production which have been described, but one only can be regarded as a disease of the skin, namely, that which consists in a hypertrophied condition of the capillaries of a portion of the cutaneous structure; the others, in which the vascular system of the areolar tissue, and sometimes even of deeper-seated parts, is engaged, are truly surgical diseases, requiring usually surgical interference for their removal, and are consequently treated of in all works on surgery. All the forms are usually congenital, and are popularly believed to be occasioned by the effect of the mother's imagination upon the *foetus* in utero, an opinion shared in by the profession even until modern times, and not yet altogether exploded.

The illustration of Nævus which Dr. Neligan supplied in Plate XIV of his Atlas, subsequently to the publication of the first edition of this work, may be here remarked on. The subject, a boy, aged seven years, was covered along the neck and back with long silky hair, that along the spinous processes of the *vertebræ* being arranged somewhat like the mane of a horse. The boy's mother was the wife of a coachman, and when about six months pregnant of this child—as she stated—the stables took fire during the night, and she went to the assistance of her husband, who was endeavoring to get the horses out. In the midst of the smoke she had to hold one of the horses around the neck for some time, and try to restrain his violence. This alarmed her very much at the time, but she soon thought no more of the occurrence until the child was born as marked in the illustration.

The variety of *nævus* to be described here is characterized by a permanent discoloration and slight elevation of the part affected, on which the minute veins of the cutis appear dilated and slightly tortuous, becoming gorged with blood from any exciting cause, and thus the color varies at different times, being dark red, or purplish when the circulation is hurried or impeded. They vary in size, sometimes consisting of a small central point, from which several minute vesicles ramify, a form termed *nævus araneus*—in other cases covering a patch of the surface from the size of a shilling to that of the palm of the hand, when they are usually irregularly circumscribed, but often roundish. They seldom enlarge much after birth; but, occasionally affecting the deeper vascular structures, they become converted into one of the other forms of the disease, which consist of erectile tissue, when they acquire a greater magnitude, and are not unfrequently attended with troublesome or even dangerous symptoms.

Treatment.—If the *nævus* which engages the cutaneous capillaries be wounded, copious hemorrhage, often difficult to check, ensues, but otherwise they are of no importance, except from the disfigurement which their presence occasions, the more especially as they are usually situated on the face. On this account attempts have been at times made to remove them by caustics and other means, but a greater deformity is thereby often occasioned; unless, therefore, they exhibit a tendency to spread much, or to be converted into one of the other forms of the disease, they should not be interfered with. Mr. Startin has cured them by subcutaneous elastic strangulation. Elastic bands are sewed with a needle beneath the skin in a triangular form, including the *nævus*.—*Med. Times and Gaz.*, 3d July, 1852.

Where the *nævus* is large, Mr. Spencer Wells ties the knot of a ligature over a piece of bougie, or other substance which can be twisted daily until the thread cuts through the base of the tumor.—*Med. Times and Gaz.*, 4th Nov. 1854.

Mr. Hunt considers the *nævus araneus* to be consti

tutional, and treats it successfully with arsenic. Dr. Behrend, of Berlin, applies strong acetic acid, and then applies compresses soaked in vinegar. Mr. Milton remarks that *vaccination* succeeds in some cases by producing a firm cicatrix.

CHAPTER VIII.

HÆMORRHAGIÆ.

THE single disease which constitutes the order HÆMORRHAGIÆ might perhaps be more correctly regarded as an affection of the system generally, but as its chief characteristic phenomena become apparent to the eye through the medium of the skin, custom has sanctioned its being described as a lesion of that structure. In cutaneous hemorrhages the blood does not escape from the surface of the body, but, being bound down by the epidermis, is effused beneath it in variously sized and differently shaped spots or patches. At times, in certain diseases, especially in fevers characterized by low vital power, of which this constitutes one of the most important signs, the hemorrhagic effusion is in the form of perfectly distinct minute dots, termed *Petechiæ*, from their resemblance to flea-bites. In the division of Continued Fevers, now generally recognized, into Typhus, Typhoid, and Relapsing—we have the mulberry rash, a macula in Typhus; the rose spots, or rash, in Typhoid; while the Relapsing Fever does not present any specific eruption.—See Murchison *On Continued Fevers*. In other cases, occurring alone, or complicating the diseases above noted, it appears in irregularly circumscribed patches, often of large extent, the blood escaping chiefly into the subcutaneous areolar tissue; these are denominated *Vibices* or *Ecchymoses*, the latter term being especially applied to them when they succeed a blow or injury. And in a third form, which constitutes *Purpura*, the only one here to engage attention, the hemorrhage is in perfectly circular spots; intermingled with them, however, are usually several patches—vibices or ecchymoses.

The very minute points of extravasated blood are called

stigmata ; those next in size, *petechiæ* ; those larger again, *vibices* ; and the largest are denominated *ecchymoses*, or blotches.

PURPURA.—(See Plate XIII.)

PURPURA (*The Purples*) is characterized by the appearance on the integuments, generally over the whole body, of small, perfectly circular spots of the color of the blood, attended with more or less derangement of the vital functions. The spots vary in size from that of the head of a pin to that of a small pea ; on their first appearance the color is bright red, but augmenting slightly in extent, still preserving their circular form, they gradually acquire a deep purple hue, which, as they fade away, passes through the various shades of greenish-yellow discoloration ordinarily presented by blood effused beneath the skin from a bruise. They are generally very numerous on the cutaneous surface, and often aggregated in masses on certain regions, yet perfectly distinct from each other, except in some parts which may be exposed to pressure, where, becoming confluent, they constitute vibices or ecchymoses. Each individual spot of purpura runs its course from its first appearance until it fades away in from five or six to ten or twelve days, a slight stain remaining for some time to mark its site ; but the disease may last for many weeks, or even months, its duration depending upon the development of successive crops of the eruption, an occurrence which takes place in the mildest cases. The spots or patches are not in the least degree elevated above the cutaneous surface, their presence being caused by an extravasation of blood into the derma or beneath the epidermis, from the capillaries of the skin.

The appearance of purpura is most usually preceded by slight febrile symptoms and general depression—hot skin, quick yet comprehensible pulse, thirst, anorexia, *malaise*, and headache ; but in some cases no premonitory symptoms are noticed. The circular spots are, in the majority of instances present on the several mucous membranes of the body, and sometimes also on the

serous, at the same time that they exist on the skin; the blood being in them effused beneath their epithelial covering, through which structure, so much more delicate and fine than the epidermis, it commonly makes its way, and hemorrhage, often to a great extent, takes place, complicating the disease, and rendering it much more dangerous.

Several varieties of purpura have been described by dermatologists, all of which may, I think, be conveniently arranged in two divisions:—

Purpura simplex.

“ hæmorrhagica.

Purpura simplex (Plate XIII, Fig. 1).—The spots in this form of the disease, which may be regarded as being chiefly characterized by its mildness, appear for the most part on the extremities, and are developed very suddenly, often in the course of a single night, and usually without any preceding or accompanying constitutional disturbance. Vibices or ecchymoses are seldom intermingled with them, and they are generally much dispersed over the surface, not aggregated in masses; successive crops, rarely, however, more than two or three, appear in most cases with an interval of from twenty-four to forty-eight hours between each, and some spots then occur also on various regions of the body, the shoulders, the chest, the face, &c., but they are always most numerous on the extremities. The disease runs its course in from seven or eight days to a fortnight or three weeks, at the end of which time the stains it occasions have totally disappeared.

In some cases the extravasation of blood into the derma or beneath the epidermis, instead of occurring in distinct circular spots, without any elevation of the surface, takes place in raised wheals, resembling exactly in form the eruption of urticaria, and accompanied often by more or less of a stinging and tingling sensation, in consequence of which it has been termed *purpura urticans* (Plate XIII, Fig. 2); the patches, owing to their extent, are of a deeper purple color than in the ordinary form of *purpura simplex*, and their duration is for the same reason prolonged

to five or six weeks, although they are almost invariably developed in a single crop. Purpura urticans usually occurs on the lower extremities, and most frequently in persons laboring under some organic disease, and in those who have taken much mercury; it also appears at times in females when the menstrual function is deranged.

Purpura simplex occurring in old persons, especially of the female sex, when it appears very much intermingled with large vibices and some ecchymoses, was described by Bateman as a distinct variety, under the name of *purpura senilis*; it is usually confined to the arms and legs, is developed in a single crop, unattended with any constitutional or local symptoms, and is an affection of but little disturbance, not impeding the usual avocations of life, and running its course in from a week to ten days or a fortnight.

When any of the varieties of simple purpura now described is accompanied by hemorrhage from the mucous membranes it then constitutes a form of the second division of the disease. Occasionally purpura simplex is attended with some trifling febrile symptoms, rarely exceeding slight heat of skin, thirst, and anorexia, yet by some writers it has then been described under the name *purpura febrilis simplex*. The duration of the simple form of the disease, as has been above remarked, seldom exceeds a few weeks, but cases occur in which successive crops are developed for from eighteen months to two years or upwards.

Purpura hæmorrhagica (Plate XIII, Fig. 3) is especially characterized by the escape of blood from some of the passages of the body which are lined with mucous membrane; occasionally it takes place from the serous membranes also, when hemorrhage into the shut sacs occurs. The spots on the integuments are usually much more numerous, and generally acquire a larger size than in the former variety, and vibices and ecchymoses are more frequent; they appear on every region of the body, being most generally witnessed first on the neck and shoulders, the face, and the upper extremities; they also occur on the conjunctiva, on the gums, the tongue, and the inside of the cheeks, and are found after death to be

as thickly dispersed over the mucous membrane of the entire digestive track as on the external integuments.

The disease is ushered in usually by much constitutional perturbation, the chief symptoms being those of general oppression; in from twenty-four to forty-eight hours the spots begin to appear on the cutaneous surface, at first of a bright red color, but assuming a deep purple hue in about twelve hours; they are very numerous in most cases, and are rapidly developed; whatever region of the body is exposed to pressure, there large hemorrhagic patches are developed beneath the epidermis, and if the surface is scratched or torn, copious bleeding takes place from them; in some cases the slightest pressure, even that caused by feeling the pulse, will produce an ecchymosed spot.

Hemorrhage from the mucous membranes takes place often from the very commencement of the disease; sometimes it precedes the appearance of the spots of purpura on the integuments, but more frequently does not occur for several days after they are visible. Its most usual and most manageable form is that of epistaxis, but the bleeding is also very common from the lungs when it constitutes hemoptysis, and from the stomach and bowels whence it is rejected by vomiting, or escapes by stool. In some cases of purpura hæmorrhagica, the blood exudes from the gums in great quantity, apparently by a sort of oozing, which it is almost impossible to check, and which not unfrequently proves fatal. The hemorrhagè may take place also from the kidneys, the bladder, the urethra, the vagina, &c. The losses of blood are usually very great, and recurring constantly produce extreme depression and prostration, with a marked pallor or anæmic condition of the entire surface of the body, that throws out into marked relief the purple spots and stains which are thickly scattered over it.

The duration of this form of purpura is very variable; the local hemorrhages may be checked in seven or eight days, but they are very apt to recur, and thus the disease is often prolonged for several months, the cutaneous spots and patches continuing to be developed in constant, successive crops. When it has lasted for any time, the vital

powers become extremely depressed, dropsical effusion takes place into the lower extremities, and uncontrollable bloody diarrhoea not unfrequently sets in.

When the constitutional symptoms attendant on purpura hæmorrhagica assume a more febrile character than has been above described—a general redness of the surface, with burning heat, preceding the appearance of the purple spots—the disease has been specially noticed under the denomination of purpura *febrilis hæmorrhagica*. This variety is chiefly remarkable from its not unfrequently appearing as an epidemic, especially where many persons are crowded together, as in gaols, poorhouses, &c.

In many cases of purpura the cutaneous phenomena are so trifling as to be scarcely noticeable, while the hemorrhages from the mucous surfaces are excessive; these constitute, in my experience, the most dangerous and uncontrollable cases, and death often occurs in them from extravasation of blood into some of the serous cavities. Dr. Graves describes a form of the disease resembling this, in which, however, there was an exanthematous rash on the skin, resembling the red efflorescence so often seen in maculated typhus fever; in consequence of its presence he proposed to term the affection *Exanthema hæmorrhagicum*.¹

In the earlier editions of his large work, although not specially noticed in his latest production—*The Student's Book*—Mr. Erasmus Wilson describes as a form of purpura, under the designation purpura *cachectica*, the occurrence of petechiæ and ecchymoses on the skin, “as the consequence of a reduced and debilitated state of the system, from whatever cause the latter may arise.” We frequently see instances of this kind during the latter stages of various diseases, as of dropsies, or whenever the venous circulation is obstructed. The purpura *contagiosa* of Bateman corresponds with the petechial-eruption of typhus fever.

Purpura may occur at any age, but is very rarely witnessed in infants or very young children; it affects both

¹ *Clinical Lectures on the Practice of Medicine*, Second Edition, Vol. ii. p. 362; and reprint from Second Edition (1864), p. 715.

sexes also, but females are more prone to the disease than males. The hæmorrhagic form is more frequent in the young, and in those in the prime of life, while the simple variety appears generally in old age. Persons of the sanguineo-lymphatic temperament constitute unquestionably the majority of those affected with purpura, yet it is seen in all constitutions, in the strong and robust as well as in the weak and debilitated.

The *causes* of the disease are consequently very obscure; it was formerly believed to be always dependent on, and to be a sign of general constitutional weakness; a view which influenced the exclusive plan of treatment recommended by Willan and his followers; but it is now admitted to be often connected with plethora and sanguineous congestion. In point of fact the *cause* of it is nothing more than a matter of conjecture. It is affirmed and denied that it is due to deficiency in the fibrin of the blood; or to a deficiency in its salts; or to the presence of excessive excreta in it. Dr. Williams considers it to be connected with hepatic congestion and imperfect biliary secretion. That low, ill-ventilated habitations, with deficient or unwholesome food, are occasionally predisposing causes of purpura amongst the poor is undoubted; but inasmuch as it usually attacks only a single member of a family, some peculiar state of the constitution, the nature of which we are unaware of, is manifestly requisite to enable these causes to act. An exclusively meat diet, or an insufficiency of vegetables and milk, either of which produces the peculiar affection known as scurvy, does not seem to exert any influence in the causation of purpura; in the year 1847, when scurvy was so general in this country, in consequence of the failure of the potato crop, purpura was not as prevalent as usual. In some cases of the disease which I have seen a hereditary tendency to it could be traced, but this is not of so decided a character or so general as in the singular instances of the *hæmorrhagic diathesis*, occasionally witnessed, in which the slightest injury causes often uncontrollable bleeding, death sometimes, in consequence of it, resulting from the extraction of a tooth, or even from the wound produced by the scratch

of a pin. The *proximate cause* of purpura is manifestly atony in the capillary system of bloodvessels, combined with an abnormal fluidity of the blood.

Diagnosis.—This disease is so well marked by the visible phenomena that it can scarcely be confounded with any other; but it is necessary to distinguish the occurrence of purpura in the course of fever, or as a complication of any other affection, from its existence as an individual disease. The diagnosis between it and *scurvy*, or *scorbutus*, is unattended with difficulty—the characteristic condition of the gums, the extensive brown and purple discoloration of the integuments, and the absence of the round purpuric stains in the latter, are sufficiently distinctive marks. The spots of purpura are distinguished from flea-bites, with which a careless observer might confound them, by the presence of a central punctum in the latter, and their almost total disappearance on firm pressure being made with the finger, the marks of purpura being thereby unaffected.

Prognosis.—Even cases of purpura that, in their commencement, do not present symptoms of severity, are not altogether free from danger, for the simple form of the disease not unfrequently becomes converted into the hemorrhagic, and whenever bleeding from the mucous surfaces takes place in this affection the prognosis must be cautious. When death occurs it is either directly or indirectly consequent on the loss of blood: in the former case it may be sudden, as when apoplexy results from hemorrhage into the substance of the brain, or from its membranes, and in the latter it is generally less immediate, the patient dying with the symptoms usually caused by repeated losses of blood. The hemorrhage being profuse, or continuing unchecked by treatment, is always an unfavorable sign; and until it ceases completely, and fresh spots no longer appear on the cutaneous or mucous surfaces, the patient cannot be regarded as safe. Bleeding from the gums, particularly when at all excessive, is, in my experience, one of the gravest symptoms of the disease, even although there may be but little eruption on the integuments; I have rarely

seen a case of purpura recover in which it was present to any extent.

Pathology.—Occurring in the young, the strong, and the robust, and in the old, the weak, and the feeble, it is difficult to arrive at any correct view of the *pathology* of purpura. The precise condition of the circulatory apparatus, and of the blood itself, in which that fluid escapes from the vessels most remote from the centre, has not been sufficiently investigated as yet to enable correct deductions to be drawn as to the real nature of the disease. It is true that the blood in purpura has been chemically analyzed and microscopically examined, but the results afford no further information than what had been previously gained by the unaided senses—that it is deficient in solid constituents, in consequence of which it is in most cases extremely fluid, and does not coagulate after its exudation through the mucous membranes, or when drawn from a vein; yet, as shown by the analyses of Fricke, of Garrod, and of Parkes, the fibrin may be in excess, and the property of coagulation not deficient in purpuric blood. The appearances in the internal organs, found after death, are the presence of purpuric spots and vibices on the mucous, and occasionally on the serous, membranes, and in some cases hemorrhage into one or more of the shut cavities.

Treatment.—The treatment of purpura has been much influenced by the different opinions which have prevailed as to its true nature; many, adopting the views propounded by Willan as to the disease being nearly allied to scurvy, and, consequently, being essentially one of debility, agree also with him, “that the treatment is simple, and may be comprised in a very few words: a generous diet, the use of wine, Peruvian bark, and acids;” others, regarding the doctrine of Parry, “that it is always of inflammatory origin,” as correct, recommend early and free venesection as holding out the only hope of successful treatment. In very few cases of the disease, however, is the decided antiphlogistic treatment here recommended either needed or beneficial, and in still fewer will the employment of tonics and acids be necessary or advantageous. Instances unquestionably occur in which the abstraction of blood

to a small extent, in the very commencement of the disease, will at once stop its progress;¹ these are cases of purpura simplex, affecting plethoric young persons of a sanguineous temperament; but the bleeding should always be used with caution, and is rarely, if ever, admissible when hemorrhage occurs spontaneously, to any extent, from the mucous membranes. In that form of the disease which has been described as appearing on the lower extremities of old persons, whatever tends to strengthen the constitution generally should not be omitted in the treatment; but if preparations of bark, or other tonics, be administered too freely, and without the simultaneous employment of remedies calculated to remove the hemorrhagic tendency, the symptoms are often suddenly aggravated, purpuric spots are developed over the body generally, and bleeding takes place from the mucous cavities, the simple form of the disease being converted into the hemorrhagic.

Some years since I published an essay² on the treatment of purpura by *large* doses of oil of turpentine, and illustrated the efficacy of this remedy, when thus administered, by a report of several cases in which it proved singularly successful. Since then I have continued to employ it both in the simple and hemorrhagic forms of the disease, and my additional experience is fully confirmatory of the views then propounded. It must be given in doses sufficiently large to act as a purgative—from one to two ounces, according to the age and strength of the patient, for adults, and a proportionate dose for children; to insure its purgative action I was at first in the habit of giving it in combination with castor oil, but this, so far from being necessary, interferes, I think, more or less with the special effect of the turpentine, and therefore I now prescribe it combined simply with mucilage, as in the following form:—

¹ Without here entering on the *verata quæstio* as to the change of type in disease, the Editor cannot concur in the above advice. He does not believe that bleeding can stop the progress of the disease.

² *Dublin Journal of Medical Science*, First Series, vol. xxviii. p. 189.

R. Olei Terebinthinæ, . . . unciam.
 Mucilaginis Acaciæ, . . . unciam.
 Aquæ Menthæ Piperitæ, . . . unciam cum semisse.
 Misce. Fiat haustus.

This draught may be taken once or twice daily, according to the degree of its action on the bowels; and should there be much hemorrhage from the intestinal canal, or the stomach reject the draught, the same or a larger quantity of the oil of turpentine, suspended by means of yelk of egg in decoction of barley, may be administered as an enema. The beneficial action of the turpentine in this disease is twofold: first, it is a diffusible stimulant and styptic, which, when conveyed into the circulation through the digestive organs, is exhaled from the system by means chiefly of the mucous surfaces, as is manifested by the odor of the breath, and of the various secretions and excretions; it is thus consequently brought directly into contact with the capillary circulation, from which in this disease the hemorrhage takes place; and, second, the free employment of purgatives in the treatment of purpura having been long since proved to be attended with most successful results, the administration of oil of turpentine to fulfil this indication is especially serviceable in consequence of its not being a debilitant.

In cases in which from any cause—excessive debility or tendency to diarrhœa, &c.—purgatives are contra-indicated, the turpentine may be given in smaller doses, and repeated at shorter intervals; thus from twenty or thirty minims to a drachm may be prescribed every third or fourth hour, or three times a day, according to the amount of hemorrhage which accompanies the disease. Should there be extreme debility present, preparations of iron—those which are astringent being preferred—or other tonics, may be administered conjointly with the turpentine; but, on the other hand, when there is much vascular excitement or general plethora, bleeding or other evacuants should be had recourse to at the same time that it is prescribed.

The employment of numerous other astringents and styptics has been recommended for the treatment of purpura; in cases attended with much hemorrhage from the

stomach and intestines, or from the lungs, acetate of lead combined with opium often proves useful; the combination may be given in a pill—two grains of the former with a fourth of a grain of the latter every fourth or sixth hour. But of all this class of medicines which have been used not one has proved so beneficial as gallic acid; it is especially of service in cases attended with profuse bleeding from the mucous surfaces, and may then be given in alternate doses with the oil of turpentine. Thus, a pill containing five grains of gallic acid made with sufficient mucilage or conserve of roses, should be administered every fourth hour, the turpentine draughts being given two hours before and after each pill.

When excessive hemorrhage takes place from the mucous membrane of the gums and the inside of the mouth, it is, as before remarked, a most dangerous symptom, and the bleeding is extremely difficult to check—the most active styptics applied directly often failing to diminish it in the slightest degree. I have in such cases tried, unavailingly, nitrate of silver, saturated solutions of alum, of sulphate of iron, of gallic acid, &c., Ruspini's styptic, nitric acid, and even the actual cautery; pieces of lint dipped in oil of turpentine seem to have the most effect, but the general treatment above recommended can alone be then relied on.

Sponging the surface of the body repeatedly during the day with cooling lotions—such as equal parts of vinegar and water, with the addition of a sixth part of rectified spirit, should there be much febrile heat—is an adjunct, too often neglected, of much value in the treatment of purpura. Acidulated drinks—lemonade, raspberry vinegar and water—should be always freely allowed, and the diet, though rather small as regards quantity, ought to be nutritious and tonic, but easy of digestion, consisting chiefly of milk, farinaceous food, and strong beef-tea; all food and drink being taken rather cold than warm.

Scorbutus.—A passing reference has been already made to *scorbutus*, or sea scurvy; chiefly with the view of showing that it should not be confounded with purpura. Though popularly spoken of as a skin disease, it is not properly so, and therefore the reader must refer to works

on general medicine for an account of it. It may, however, be here stated, that in one of the most elaborate and scholarly papers ever written on a hotly controverted question, the late Professor Osborne of this city (in the *Dub. Qu. Journ.*, May, 1858) demonstrated the plague at Athens, as described by Thucydides, to have been none other than scorbutus or sea scurvy. Lucretius (*De Nat. Rer.* VI, 1164) described this plague by the name of "Sacer ignis;" and Eusebius, the Ecclesiastical historian, gave the same name to the plague which raged in Syria A. D. 302.

CHAPTER IX.

MACULÆ.

THE group of cutaneous affections classed in the order MACULÆ (spots) is characterized by a morbid condition of the color of the skin, dependent on some deranged state of the secretion of the pigment cells of the derma. The change may consist in either an augmentation or a diminution of the natural color, or it may be altered in hue or totally absent; in some instances it affects the entire surface of the body, but more usually occurs in spots or patches that vary much in shape and in extent; in either case there is no sensible elevation or depression of the surface. The several affections belonging to the order may be congenital, or they may be developed at any period of life; in the former case they usually consist in the total absence of coloring matter, constituting what has been denominated *Albinoismus*—individuals being born so termed *Albinoes*—or there may be only a deficiency of coloring matter in large patches, a condition which is rare, but most frequently witnessed in children of negroes, who are thus piebald at birth. In certain diseases, as in jaundice, in chlorosis, in malignant and in most chronic affections, a peculiar alteration in color of the integumentary membrane takes place, which is regarded usually as one of the most important signs of the special diathesis or constitutional derangement which characterizes or accompanies the disease; but it is readily recognizable and cannot be confounded with the pigmentary alterations of the cutaneous structure here to be considered, which do not influence in any way the general health, and are therefore to be regarded solely in consequence of the disfigurement which they occasion, in many instances a cause of greater annoyance than a real disease.

These changes in color may be conveniently described in two divisions; the one, that attended with deficiency of coloring matter—Vitiligo, including *albinoismus*; and the other, marked by augmentation and alteration of the natural pigment—Ephelis.

VITILIGO.—(See Plate XIII, Fig. 4.)

VITILIGO (veal skin) consists in a deficiency or total absence of the natural coloring matter of the skin, in consequence of which it presents a white and sometimes glistening aspect; the term, which was adopted by Willan from Celsus, is conjectured to have been derived from the resemblance which the integuments thus affected bear to the flesh of calves—*Vituli*, and being sanctioned by usage and sufficiently expressive, I have been unwilling to change it for *Leucopathia*, an appellation more strictly correct, perhaps, which is employed by many modern dermatologists. It must be borne in mind, however, that the vitiligo of Celsus was not the disease here under consideration. As already remarked in Chapter VII, his vitiligo was identical with the Greek λέπρα, and it will be remembered that, in the present work, the latter term is considered to be synonymous with Psoriasis.—See Chap. VI. The decoloration may be limited to certain regions of the body, occurring in patches, or may be general when the absence of pigment is witnessed in the hair, the eyes, &c. In the former case, the peculiar condition of the skin is often congenital, but it may be developed at any period of life; it constitutes the *Achroma vitiligo* of Alibert; the latter, the *Achroma congenitale* of the same author is always congenital; it is denominated, as before remarked, *Albinoismus*.—Plate XIII, Fig. 5. *Albinoismus* cannot be regarded as a disease, and therefore, not coming within the scope of this Work, need not be described here; it, moreover, is not within the sphere of medical art, being altogether an unalterable, and consequently an incurable, affection.

What then may be termed *true* vitiligo, when not congenital, is developed in the form of rounded spots or patches, few or many, on some special region of the body,

or on several parts at the same time; the spots are at first usually small, not more than a few lines in diameter, and nearly circular, but they gradually augment in size—often acquiring the magnitude of the palm of the hand, and become irregular in shape. It appears most frequently on the chest, the back, the scalp, and about the genital organs, but it may occur on any part of the integuments. The portions of skin affected present simply a white aspect, in some cases dull, in others bright and glistening, without any sensible elevation or depression of the surface; if hairs grow naturally on the part they also become perfectly white, no matter of what color they may have been previously, and not unfrequently fall out after a short time, leaving a bald, colorless patch. When the hairy scalp is thus affected attention is at first usually attracted to it by a single lock of the hair, generally on the back part of the head or temples, turning white; this gradually becomes larger, and at length the hairs, which have lost their color, fall out, and one of the forms of *alopecia*, or what has been termed a variety of *porrigo decalvans*, is thus constituted.

The *causes* of this singular affection of the skin are perfectly unknown: it occurs at all ages, and is most frequent in the prime of life, especially when it appears on the head, but it is developed on the genital region usually in old persons; it is witnessed, too, in individuals of all temperaments, yet I think it is more common on the scalp of those who have dark than of those who have light hair; it is also, in my experience, more usual on the head in females, and on other parts of the body in males. Congenital vitiligo is rare in the white races, occurring with a much greater degree of frequency in negroes, infants at birth sometimes presenting a completely pied appearance.

The *diagnosis* of vitiligo is unattended with difficulty; the longitudinal white furrows on the abdomen of females who have borne children or of those who have had ascites, and on the breasts of nurses, might, by a superficial observer, be confounded with it, but their site and the history of the individual case are in all cases sufficient to prevent such a mistake. A form of *lupus*, to be here-

after described, is stated by Mr. Erasmus Wilson to be incorrectly regarded as vitiligo, and he consequently introduces this term amongst the synonyms of *Lupus non-exedens*, but, as will be shown in the next Chapter, the diseases are essentially different, and cannot be confounded.

Prognosis.—An affection of the most trifling importance as regards the general health, and accompanied by not the slightest local sign or symptom of irritation in its development or progress, vitiligo is, nevertheless, attended with the most serious mental suffering, especially to young persons, when it appears on the face or the hairy scalp, owing to the disfigurement which it there occasions. It is often both rebellious to treatment, and always extremely slow in exhibiting any signs of amendment, yet, by continued attention, a cure is usually effected in time.

Treatment.—Constitutional remedies should not be neglected in the treatment of vitiligo, but those required are simply such as will restore a healthy tone and vigor to the system; consequently, preparations of iron or of bark combined with iodine, cod-liver oil in scrofulous habits, cold salt-water bathing generally, or local in the form of the shower-bath or of the douche, and, above all, mental quietude, are the most essential. Topical applications, however, are chiefly to be relied on, and of these various stimulating remedies especially are employed with benefit; tannic acid ointment, in the following form, has proved of more service than any other in my hands:—

R. Acidi Tannici,	grana quadraginta.
Adipis præparati,	unciam.
Glycerini,	semi-drachmam.
Olei Rosmarini,	minima octo. Misce.

A portion of this ointment should be rubbed forcibly into the parts affected, three times a day, the surface having, previously to each application, been washed well with a saturated solution of common salt in water. In very chronic or obstinate cases blisters may be applied to the affected parts, in order to excite a new action in them, or tincture of cantharides made into an ungent

in the proportion of a drachm to the ounce of white wax (simple) ointment, rubbed in twice daily. Sulphuret of potassium and other preparations of sulphur, in the form of lotion or ointment, employed locally, sometimes succeed when other remedies fail; but next to tannic acid I have found oil of turpentine prove most useful as a local application: a pomade may be prepared with it as follows:—

R. Olei Terebinthinæ, drachmas duas.
 Sevi Præparati, uncias duas.
 Balsami Tolutani, drachmas duas.
 Simul liquefac lento igne, dein adde,
 Olei Rosmarini, minima viginti.
 Olei Amygdalæ Amaræ, . . minima quinque.

A small portion of this pomade should be rubbed into the affected spots, twice or three times a day, with a piece of flannel, the part having been previously well washed with an alkaline wash—a drachm of carbonate of potash to eight ounces of distilled water.

EPHELIS (*Melasma* of Plenck).

EPHELIS.—This term, as its derivation (*ἐπι*, upon, and *ἥλιος*, the sun) indicates, was originally employed to designate all discolorations of the skin caused by the direct action of the solar rays, but latterly it has acquired a more extended signification, and may, I think, now be understood to include all those affections in which the natural pigment-hue of the skin is augmented or altered. Some of these changes being congenital and unalterable, need not be described here, while others are due and can often be traced to specific causes. Ephelis may be conveniently considered as consisting of three varieties:—

Ephelis lenticularis,
 “ hepatica,
 “ violacea;

to which, perhaps, should be added a fourth, known of late as *Morbus Addisonii*, or *Melasma Supra-renale*, or *Ephelis Melaina*.

Ephelis lenticularis (*Freckles*).—This discoloration of

the skin is too well known to need description; in many persons the buff-colored or reddish-yellow spots which constitute it are congenital, when they are beyond the reach of medical art; but in others they are developed on those regions of the body which are uncovered, by exposure to the weather, but especially to the direct action of the sun's rays. They are seldom witnessed except in those who have a very fine and fair skin, and are of the sanguine temperament. Appearing usually for these reasons, on the skin of young persons of the female sex, and on those parts of the surface which are most exposed to observation, freckles cause very serious annoyance, and a host of applications have been employed for their removal, which is often a matter of some difficulty; persons who are liable to them should therefore protect themselves as much as possible from the causes by which they are produced. The various empirical lotions which are sold for the removal of these spots are composed chiefly of corrosive sublimate, or of the solution of the subacetate of lead in bitter almond emulsion, in the proportion of a fourth of a grain of the former, or six minims of the latter, to each ounce of either of them; they are often very useful. Mr. Erasmus Wilson recommends the application of a liniment "composed of equal parts of lime-water and olive oil," to which, if the heat of the surface is considerable, he adds "liquor plumbi in the proportion of twenty minims to the ounce." I have found the following lotion of much service:—

R. Liquoris Sodæ Chloratæ, . drachmas duas.
 Aquæ Sambuci, uncias septem.
 Aquæ Lauro-Cerasi, . . . drachmas sex. Misce.

And the application at night of a pomade, consisting of equal parts of cold cream and cucumber cerate, to every ounce of which half a drachm of the solution of chlorinated soda is added.

Ephelis hepatica (*Melasma figuratum* of Wilson) is characterized by the appearance of one or more patches, of tolerable extent, on some portion of the cutaneous surface; they are of a dull yellow or buff color, occasionally of a bronze hue; at first distinct from each other, when

more than one occurs, they gradually enlarge, and coalescing often acquire a considerable size, so that in some cases the neck, the face, the upper part of the trunk and the hands, being the parts usually affected, acquire a dark brown color. On the first appearance of the patches they are not unfrequently attended with some itching and tingling, and a fine mealy desquamation, increased by scratching or rubbing the surface, takes place; but there is no sensible elevation or depression of the skin where affected. The coloration varies much in different cases, through all the shades of gray, yellow, and brown, being often evidently dependent on the natural color of the individual; at times, when it is very extensive, the contrast is so remarkable that the unaffected parts of the skin appear as if they were the seat of vitiligo.

Ephelis hepatica is a very chronic affection, in most cases lasting for many months, or even for years; but it is occasionally of short duration, and even evanescent, disappearing suddenly a few hours after its development. In the latter case the discolored patch or patches generally appear in females just before the coming on of the menstrual discharge, and fade away when it commences. It is a more frequent affection in all its forms in the female than in the male sex, being a not uncommon attendant on pregnancy and on various uterine derangements; in both sexes it is rarely witnessed except in the prime of life, occurring, however, with greater frequency in old than in young persons. A large patch of ephelis hepatica is sometimes developed on the neck or the side of the face, by the action of the rays of the sun; and a discoloration of the skin resembling it in hue—but differing from it, occurring in large, irregularly-shaped rings, surrounding comparative healthy skin—appears on the lower extremities generally of old persons who expose their legs uncovered to the fire; the latter has been specially described by Rayer, as being very common in Paris amongst the lower order, especially females, who sit over a charcoal fire, and is termed by him *Ephelides igneales*; in Ireland, also, it is common amongst the poor, chiefly in country districts where turf fires are used, and is vulgarly called the *Trouts*.

Diagnosis.—This affection is often confounded with a form of pityriasis, and, as already remarked, when describing that disease, Rayer and Wilson consider pityriasis versicolor, and pityriasis nigra, as being nothing more than discolorations of the skin, and therefore to be classed with ephelis: my reasons for differing with them have been there given.—See Chap. VI. The stains of ephelis hepatica may be confounded with those which are symptomatic of a syphilitic taint in the system, from which they are chiefly to be diagnosed by the history of each case, and the concomitant symptoms.

In the *treatment* of this affection it is requisite, in the first place, to direct attention to the general health, especially the state of the digestive organs, with a deranged condition of which their presence is often associated, and to use remedies calculated to restore to them, if requisite, a healthy tone; in females, moreover, should there exist any irregularity of the menstrual function, appropriate means to correct it must be employed; but when the patches are developed in the course of pregnancy, no treatment ought to be had recourse to, for they usually disappear after delivery. The local applications that prove most successful are those which have been recommended for the last described variety of ephelis; when, however, the discoloration of the surface is very extensive, hot baths containing the sulphuret of potassium, or of the natural sulphurous waters, will be found of service: these mineral waters also should be used internally, and if drunk at their sources so much the better. When a single large patch of ephelis hepatica becomes chronic, repeated blisters applied over it will sometimes remove the discoloration of the part.

Ephelis violacea.—When the internal administration of the nitrate of silver has been continued for a lengthened period, without prolonged intermissions, the derma becomes chemically stained with it, and the entire surface of the body then presents a slate-colored, bluish-gray or leaden hue, causing a frightful disfiguration, more especially as the face and those parts constantly exposed to the light are most deeply tinged. This discoloration is much less frequently witnessed now than it was some

years since, when this medicine was so universally employed for the treatment of epilepsy and other nervous and convulsive diseases. The most certain way to prevent this result—one of so grave a character as almost to counterbalance any good effects which might be derived from the administration of nitrate of silver as a medicine—is not to continue its use for a longer period than six weeks or two months; and should it be thought proper to resume its employment again, to permit at least a month to elapse before doing so.

Treatment.—This discoloration when once produced is permanent, and becomes even deeper with time; nor have any means hitherto tried for its removal had the slightest effect on it. The iodide of potassium, when applied to the skin, even some days after it may have been stained by the direct application of the nitrate of silver, effectually removes the discoloration; its use in various ways has therefore been proposed for the general staining of the cutaneous surface above described. Professor Melsens, of Brussels, has given it in enormous doses, half a drachm, or even more, three times daily, exposing the patient at the same time to a hot vapor bath: the iodine is thus brought to the surface, when it may be readily detected in the perspiration by the ordinary tests. He continues this plan of treatment for months; but in one case that I am cognizant of, which was treated by himself, the discoloration was not in the slightest degree removed. This, I think, was to be anticipated, for it is as iodine, and not as iodide of potassium that the preparation is given off by the skin after its use has been continued for some time; I would, therefore, suggest that the patient, while under the influence of the remedy, should be placed, during half an hour or an hour, in a warm bath containing carbonate of potash in solution, instead of employing the hot vapor bath, as thus the iodide of potassium might be brought into direct contact with the derma.

Mr. Wilson, and others, have noticed a blue tint of the skin, and have called it *Cyanopathia*. That it exists at all as a special affection is doubted by many; the alleged cases of it are very rare, and Dr. Fox very graphically

remarks that "it is a curiosity, if not, at least in the greater number of instances, a hoax."—*Op. cit.*, p. 216. The same writer notices a curious disease described by Dr. G. Van Arcken, in the *Amer. Med. Month. Journ.*, for April, 1858. It is called *Carate*,¹ and is endemic in New Grenada and the northern parts of America. It is diathetic, and is characterized by the appearance of dull white, copper, crimson, red, and dark blue colors on the body. Three varieties are noticed. The simplest, *blue*, seen between the ages of 15 and 25, and consisting of oval or round spots on the face, extending so far as the neck and lower limbs; the *white*, occurring between 30 and 40, rare in males, and commonly associated with ovarian disease; the *rose-colored*, consisting of red points on the hands, face, and belly—seen in both sexes. Dr. Fox says "it is supposed to be brought about by ill-living."

Treatment.—Dr. Van Arcken has found alterative mercurial treatment, iodides and arsenic, successful remedies. The blue variety he cures in about eight weeks; the other two forms require a longer period, "but the complete cases, whether they be congenital or contracted afterwards, are better left alone."—See *Brit. and For. Med.-Chir. Rev.*, July, 1858, p. 261.

MORBUS ADDISONII.

MORBUS ADDISONII; or Melasma supra-renale; or Ephelis Melaina; *Anglicè*, *Bronzed skin*.—See Plate in Sydenham Society's Atlas.

Whether this affection should be included among cutaneous diseases, or not, is perhaps a matter of debate; but inasmuch as the peculiar color of the skin is its most prominent feature, and as its cause is yet undetermined, it may be well to give a brief notice of it here.

In the year 1855, the late Dr. Addison, then Senior Physician to Guy's Hospital, published a remarkable, and copiously illustrated Monograph *On the Constitutional and local Effects of Disease of the Supra-renal Capsules*.

¹ From *cara*, the Spanish for *face*, and *ate*, the Indian for *look*; the word meaning *look at his face*.

In this disease, which is marked by a partial or total discoloration of the skin, sometimes in patches, but always more or less *bronzed*, there are found progressive debility accompanied by anæmia, and occasionally by proportionate wasting, uncontrollable gastric irritability, a compressible pulse, and occasional giddiness. The disease terminates fatally after a few years; and on *post-mortem* examination the supra-renal capsules are found to exhibit a substance composed of a firm, slightly transparent, reddish basis, interspersed with irregular spots of opaque yellow matter, much resembling an enlarged mesenteric gland mottled with tubercular deposit.

That the bronzing of the skin is caused by excessive pigmentary deposit in the deeper layers of the cuticle has been proved by the microscope; but the source of the pigment, and the immediate cause of its deposit in this disease, are unknown.

There have been several theories broached to account for it, but one chief difficulty has ever existed in the fact, that other changes occur in the supra-renal capsules without pigmentary deposit in the skin, while, to all appearance an identical cutaneous discoloration may exist without the symptoms or pathological results of Addison's disease. One theory as to the excessive pigmentary deposit is, that it depends on irritation of the sympathetic or vaso-motor nerve regulating the vascular supply of the skin; another, that it depends on a morbid state of the blood, and that the pigment is an excretion of carbonaceous matter which occurs because of a defective eliminating power of some internal organ, or because of inal-assimilation.

In a paper on the subject recently published by Dr. Hayden, of this city, the author says that—"The pigmentation of the skin in Addison's disease results, probably, either from arrest of the process of molecular disintegration of the colored cells of the cuticle, or from excessive destruction of the red blood corpuscles, and consequent abnormal deposit of the escaped coloring matter, or pure hematin, in the *rete mucosum*, in its passage to the outer surface of the cuticle, whence it is

to be discharged from the body."—*Dub. Quart. Journ.*, Feb. 1865.

The *treatment* of the case recorded by Dr. Hayden fairly indicates that usually pursued in such cases. It consisted "mainly in various preparations of iron, sedatives, counter-irritants; and towards the close of the case, when the stomach had become intolerant of food of any kind, of nutritive and stimulant enemata."

There have not been wanting those who assert that this disease is one of much older date than might be inferred from this title—*Morbus Addisonii*.

It has been called the black jaundice (*icterus niger*, *meles icterus*) of antiquity; and various passages have been cited from Hippocrates, Galen, Aretæus, and others, in support of this view.

Mr. Wilson looks on it as *Melasma Universum*, of which he says he has recorded several examples; and he observes that "Addison was the first to point out the association of Melanopathia [a synonym for *Melasma Universum*] with anæmia."—*Student's Book*, &c., p. 400.

An elaborate and valuable monograph, *De la Maladie D'Addison*, was published in Paris in 1864. It was written by M. Louis Martineau, and contains not only full information on the subject, but a small collection of useful illustrative plates, and an "Index Bibliographique," containing references to nearly all the authorities of any weight at home or abroad. His "conclusions" differ in some respects from those held commonly in this country, but they are so clear and concise that they are here appended for the benefit of those who may not have access to M. Martineau's work:—

"1. La maladie d'Addison existe comme entité morbide. Elle est caractérisée par une forme particulière d'anémie, s'accompagnant d'un état de langueur générale, de débilité, d'un remarquable affaiblissement de l'action du cœur, d'irritabilité de l'estomac, et les plus souvent d'une douleur siégeant tantôt à la région lombaire tantôt à la région épigastrique ou dans les flancs, vers l'extrémité antérieure de la dixième côte. De même, le plus

souvent elle s'accompagne d'un changement particulier de la couleur de la peau : cette coloration est ordinairement bronzée, brunâtre ; elle offre, dans certains cas, des caractères qui peuvent, jusqu'à un certain point, la différencier de la coloration plus ou moins analogue que l'on rencontre dans d'autres cachexies.

"2. La dénomination qui nous paraît, quant à présent, devoir lui être attribuée de préférence, est celle de *maladie d'Addison*, du nom de celui qui, le premier, en a donné une bonne description. Le nom de maladie bronzée (*bronzed skin*) ne lui convient nullement, attendu que cette coloration se montrant dans divers états, et n'étant pas toujours constante dans la maladie qui nous occupe, ne sert qu' à induire le clinicien en erreur.

"3. La coloration bronzée doit être considérée comme un épiphénomène ; elle est indépendante de l'état des capsules surrénales.

"4. La maladie d'Addison peut-être considérée comme une névrose ayant son siège dans la grand sympathique, névrose soit primitive, soit symptomatique.

"5. L'altération des capsules surrénales dans cette maladie peut, à l'exemple de ce qui a été fait pour l'abuminurie, le goître exophthalmique, être considérée comme secondaire.

"6. Les capsules surrénales ne me paraissent pas nécessaires à la vie."

As it is obvious that the discussion of this interesting malady belongs rather to general medicine than to the special subject of this work, the Editor can only refer to some books and papers in which more complete information may be found. Besides those already noted, the reader may consult Dr. Greenhow's remarks in the *Lancet* for April 1, 15, and 22, 1865 ; Report of a case at the Radcliffe Infirmary, Oxford, in the *Lancet* for 18th February, 1865 ; Dr. Wilkes, in *Guy's Hospital Reports*, Third Series, Vol. VIII ; Drs. Cotton and Harley, in *Med. Times*, 1857 ; Dr. Parkes, in *Med. Times*, 1858 ; Dr. Barton, in *Dub. Hosp. Gaz.*, 1859 ; Dr. Harrison, in *Brit. Med. Jour.*, 1861 ; Dr. Fricke, in *Brit. and For. Med.-Chir. Rev.*, 1857 ; Jaccoud's French edition of

Graves' *Clinical Medicine*, Vol. I (*Clinique Médicale de Graves*) ; Hillier *On Skin Diseases*, 1865 ; Dr. Popham (of Cork) and Dr. Hughes, in *Dub. Quar. Journ.*, 1865 ; Dr. Duckworth, in *St. Bartholomew's Hospital Reports*, 1865 ; Dr. Gull, in *Med. Times and Gaz.*, 1865 ; and Mr. Holt, in *Lancet*, 1865.

CHAPTER X.

CANCROÏDES.

THE order CANCROÏDES (from *καρκίνος* cancer, and *εἶδος* like) includes two diseases of the skin, which possess a certain degree of malignancy, inferior to that of true cancerous affections, yet in many of their features bearing much resemblance to them, especially in being usually characterized by a slow and insidious ulcerative process, often attended with severe stinging pain, and by a marked tendency to return in the same or in some other part of the skin, after they have been apparently cured, or even after the diseased portion of the integument has been excised. These diseases are, by most dermatologists, classed among the Tubercula of Willan, but for the reasons already stated in the introductory remarks to the seventh chapter, I have omitted this order altogether; and even if it were to be retained, the affections now to be described could not, with any pretension to accuracy, be included in it. The term Cancroïdes, a more correct term than Cancrodes, which Dr. Neligan adopted from Copland's Classification of Diseases of the Skin,¹ expresses well their peculiar features above referred to, and is at the same time sufficiently distinctive for all purposes of arrangement. The two diseases to be described in the order are: Lupus, Keloïs.

LUPUS.

Lupus (the Wolf); Dartre Rougeante of the French; Fressende Flechte of the Germans.—See Plate XIV.

LUPUS (*Eating tetter*) appears on the skin usually of

¹ *Dictionary of Practical Medicine*, Vol. iii p. 799.

the face, but often on the scalp in various forms: it is generally developed as an inflammatory affection with more or less hypertrophy of the integuments attacked, soon terminating in ulceration, which may be either superficial or deep-seated, but is always painful, slow, and insidious, and especially characterized by a destructive tendency, whence the name *Lupus*, "*a wolf*," was originally applied to the disease. The ulcerative process may be confined to the epidermis and the superficial layers of the derma, may extend quite through the cutaneous integument, or may even affect the deeper-seated parts, destroying areolar tissues, muscles, cartilages, and periosteum, laying bones bare, and thereby causing caries in them. The disease is thus naturally divided into three forms, but in general two only are described by writers on cutaneous affections: the one, in which the ulcerative process attacks the deeper-seated tissues being termed *lupus exedens*, and the other, which affects mere superficial structure only, being for contrast denominated *lupus non-exedens*; in both, however, a similar form of ulceration, although differing in degree, occurs—and this division is, therefore, not strictly accurate. I shall describe the three forms, the leading features of which have been noticed above, under the following specific denominations:—

Lupus superficialis.

“ *serpiginosus.*

“ *devorans.*

Lupus superficialis (Plate XIV, Fig. 2) commences by the development of a slight thickening or elevation of the skin, not larger than a small pea, usually on the most prominent part of one cheek; it presents a somewhat inflamed appearance, is soft to the touch, rather painful if pressed firmly, and is of a very indolent nature. A thin, hard, brownish scab appears on its surface after some time, often not for months, but is seemingly not preceded by any ulceration; when the scab is picked off with the nails, as it almost invariably is by the individual himself, the part on which it rested is seen to be superficially ulcerated, with thickened and slightly elevated edges: it is soon reproduced, a little more consistent than before, but

still of small extent, and increases very slowly in size, even when irritated by the use of stimulant applications or by other local causes. Generally, after several months, the dry crust or scab falls off that part of the integument on which it first appeared, while it is spreading slowly to the neighboring surface. The portion of the skin on which it had existed is white and seamed, resembling much the condition which results from destruction of the superficial layers of the cutaneous structure by a burn. With slow but steady progress the disease advances over the cheek, usually in one direction only, leaving its trace behind in the white seaming of the skin; at times it becomes the seat of active inflammation, generally from being rubbed or torn with the nails, when a small, painful ulcer results; but the local symptoms are never very severe, the chief annoyance it causes being due to the unsightly deformity which it occasions on the face. The progress of this form of lupus is so slow that the resulting superficial cicatrix above described, which is somewhat circular, does not attain a larger size than that of a shilling in from two to three years after the first appearance of the disease—at least such was the case in two persons affected with it whom I have had under my care.

Lupus superficialis, as here described, is a rare affection, and has escaped the notice of many writers on diseases of the skin; Dr. Copland gives the best account of it that I have met with, under the appellation of *Lupus superficialis non-tuberculosus*.¹ Its duration may be almost indefinitely prolonged; when it terminates in cure the scab falls off, and is not succeeded by another, but the mark on the cutaneous surface is indelible.

Lupus serpiginosus (Plate XIV, Fig. 3).—This variety of the disease—well named by Alibert, *Esthiomenos* (from *ἐσθίω*, “I eat”) *ambulans vel serpiginosus*—is well marked by highly characteristic phenomena, which distinguish it from either of the other forms of lupus; but it must be noticed that the specific name “superficialis” has been applied to it by some dermatologists who do not appear

¹ *Dictionary of Practical Medicine*, vol. iii. p. 790.

to have met with the variety of the disease above described under that appellation. It commences by the development of one or more small, livid or dusky-red tumors—the *tubercles* of most authors—about the size and shape of a pea, on some portion of the integuments, usually on the face or the scalp, but not unfrequently appearing on different parts of the body at the same time; they feel thickened and somewhat hard to the touch, with an un-circumscribed, soft, and slightly swollen base, and are rather painful on pressure, a sense of heat and itching also attending them. These tumors are very indolent, often remaining stationary for months, and scarcely increasing in size; interstitial absorption of the deep layers of the derma is, however, slowly going on, and at length purulent matter makes its way to the surface, generally at the most prominent part of the elevations; ulceration then takes place, and, the pus escaping, it is found that the surrounding integuments are more or less undermined by the process of destructive absorption which had been taking place. Additional tumors are now developed in the neighborhood of those which first appeared, and of a similar character in all respects to them; the intervening portion of integument presents an œdematous aspect, has a boggy feel, and, being first undermined by the ulcerative interstitial absorption, which continues its slow progress, at length gives way, and an unhealthy-looking, open ulcer—extending quite through the skin, and covered in parts by a hard, brown crust or scab—is formed.

The ulcers constituted in the manner above described heal slowly, leaving an uneven excavated cicatrix or pit of a white glistening color, but the disease continues to spread from the circumference, *creeping* on—whence the specific name—almost invariably in the form of irregular rings. The interstitial ulceration in many cases reattacks the parts which have cicatrized, and they again may thus become, for a second or third time, or even oftener, the seat of the disease, which runs the same course as at the first, but each time the surface heals the resulting cicatrix is deeper and more uneven. It not uncommonly occurs that two or more patches of the lupoid ulceration coalesce in consequence of the disease spreading from the circum-

ference of each, and an extended portion of the integuments may thereby be affected.

Lupus serpiginosus occurs, as already remarked, with greatest frequency on the face and scalp, often extending, too, from one to the other, and being confined to them, but it is also witnessed on both the upper and lower extremities, and occasionally on the trunk of the body; it is usually attended with more or less local pain in all its stages, which is much aggravated at times by attacks of acute inflammation when it spreads more rapidly; but the constitution very rarely participates, those affected with the disease being often apparently in excellent health, even although it may have lasted for years. It is always of a chronic nature, and its duration is extremely prolonged. When it terminates in cure the intra-dermoid ulceration ceases to spread; healthy granulations, at times rather exuberant, form on the surface, and cicatrization of the affected part takes place; the annular edges being elevated over the healthy skin, and of course much more over the cicatrized portion, and being of a bright-red color, which they retain for a long time, contrast remarkably with the shining white aspect of the latter; much disfigurement consequently results.

Lupus devorans (noli me tangere), Plate XIV, Fig. 4.—This variety of the disease commences in various ways; but no matter what appearance it may present at first, is in its progress characterized by destructive ulceration of the various structures situated beneath the skin—areolar and adipose tissues, muscles, tendons, cartilages, and periosteum being equally destroyed; the bones even do not escape, for where they are laid bare caries attacks them. It may be developed, like the last-described form, by the appearance of one or more rounded, dusky-red elevations of the integument—tubercles—on the *alæ nasi*, on the cheeks, or on the roof of the mouth, which, however, run a somewhat more rapid course than in lupus serpiginosus, are the seat of more active inflammation, and are attended with a more destructive ulcerative process, which extends to the deeper-seated structures. In other cases one of the *alæ* of the nostrils becomes slightly swollen, painful to the touch, and of a violet-red color;

being attended with itching, it is soon scratched with the nails, a brownish crust or hard scab results, which is surrounded by an inflammatory cedematous base, and, purulent matter forming beneath it, ulceration of the destructive character peculiar to the disease commences. In a third class of cases the tip of the nose swells, and presents a dead-white color; gradually but slowly enlarging, a black crust forms at the very apex, the mucous membrane of the nostrils becomes thickened, chiefly from effusion into the areolar tissue beneath it, and at length ulceration takes place. And, lastly, the thickening and subsequent ulceration first appears in the soft palate or posterior nares, and, proceeding from within outwards, eventually attacks the septum naris and the other cartilages of the nose.

In whichever way the disease may commence, the resulting ulceration presents much the same characters; its tendency is to spread from the surface inwards, not unfrequently undermining in its progress the healthy integuments before it attacks them, and being attended with a foul, unhealthy, purulent, often ichorous, discharge. The parts first affected usually cicatrize in the course of the disease, when the cicatrices present a similar appearance to what is witnessed in *lupus serpiginosus*, but indicate a greater loss of substance beneath. This is especially remarkable on the nose, the most usual seat of this variety of *lupus*, this feature assuming then a peculiar pinched appearance, from a deficiency of some of its natural proportions. The amount of destruction caused by the ulcerative process varies much in different cases—in some removing only a small portion of the cartilages of the *alæ nasi*, while in others the entire soft part of the nose, the *alæ* and *septum naris*, and the soft palate are destroyed, frightful deformity being thereby occasioned. As in the other forms of *lupus*, parts that have been cicatrized not unfrequently again become the seat of fresh ulceration, which runs a similar course to what it did at first, being then, however, more difficult to check.

Lupus devorans most generally runs a very chronic course, its progress being slow, years often elapsing before it causes much destruction of the part it appears

on; but cases occur, happily very rarely, in which it destroys with extreme rapidity those portions of the integuments and of the neighboring structure it attacks; thus, in from a month to six weeks the entire of the nose may be eaten away: this variety of the disease has been appropriately enough termed *lupus vorax*.

In some cases *lupus devorans* attacks the lower eyelid first, commencing by the development of a single rounded elevation of the skin, of a livid aspect; its progress is extremely slow, but in the course of years it eats away all the structures around the eyeball, laying the orbit almost completely bare, but sparing the eye itself, which appears just as if it had been dissected out by the ulceration. This variety of the disease was first accurately described by Professor Jacob, who, however, regarded it as a malignant ulcer, and not as a form of lupus, and it has been ever since known to the profession in this country by the name of "Jacob's ulcer."—Plate XIV, Fig. 5. Rayer, who also gives an accurate account of it, believed it to be lupus, and with him my experience, derived from the prolonged observation of several cases, compels me to agree. The following graphic account of this lupoid ulceration is given by Professor Jacob:¹—"The edges are elevated, smooth, and glossy, with a serpentine outline, and are occasionally formed into a range of small tubercles or elevations; the skin in the vicinity is not thickened or discolored. The part within the edges is in some places a perfectly smooth, vascular, secreting surface, having veins of considerable size ramifying over it, which veins occasionally give way, causing slight hemorrhage; in other places the surface appears covered by florid, healthy-looking granulations, firm in texture, and remaining unchanged in size and form for a great length of time. The surface sometimes heals over in patches, which are hard, smooth, and marked with venous ramifications. . . . The discharge from the surface is not of the description called by surgeons unhealthy or sanious, but yellow and of proper consistence; neither is there more fetor than from the healthiest sore,

¹ *Dublin Hospital Reports*, Vol. iv. p. 232.

if the parts be kept clean, and be dressed frequently." It is surprising how little suffering, either local or constitutional, attends this frightful affection, the duration of which may extend to an advanced old age.

Lupus in all its forms is a disease of youth and of the prime of life, being rare before the age of ten, and very seldom developed for the first time in old age. As regards its *causes*, there is abundant evidence to show that it is intimately connected with the scrofulous diathesis, especially when it is hereditary; and many cases seem to prove that a constitutional syphilitic taint also is a frequent predisposing cause of it. In the majority of instances it appears at or soon after puberty, without any manifest exciting cause, but sometimes it follows an injury or other local irritant. It is, on the whole, rather a rare disease, and is perhaps somewhat more frequent in females than in males.

Diagnosis.—The differential diagnosis of the various forms of lupus now described is unattended with difficulty, but some of them may be mistaken for other diseases of the skin. Lupus superficialis is of such very rare occurrence that it is not often recognized when met with, yet its phenomena are highly characteristic, and it is of importance, with reference both to prognosis and treatment, that it should be diagnosed; *the peculiar cicatrization or seaming of the surface over which it has passed* is its especial mark; a similar result is not met with in any other cutaneous affection. Lupus serpiginosus may be confounded with impetigo, from which it is distinguished by the destructive ulceration which attends it, by its spreading in rings and undermining the integuments as it *creeps* onwards; pseudo-pustules are constantly developed on those parts of the skin which it attacks, but they differ from the pustules of impetigo in being flattened, more or less uncircumscribed, and presenting from the first a comparatively large quantity of purulent matter, with a very thin covering. This variety of lupus is in general described by dermatologists as being with difficulty diagnosed from scrofulous ulceration of the integuments; but this is a matter of little import, for it rarely occurs except in persons of a well-marked scrofulous diathesis, and

by many it is termed *Esthiomane scrofula*. A somewhat similar form of ulceration constitutes at times one of the phenomena of secondary syphilis, but it is not of the same indolent and destructive character, is attended with other symptoms which mark the presence of this poison in the system, and is always more or less amenable to specific treatment. *Lupus devorans* may, in its early stages, be mistaken for *acne indurata*, but the distinctive signs have been already pointed out in the description of that disease (see page 174). From the syphilitic affections which occur on the face it is distinguished by its malignancy, by its slow progress, and by its not directly implicating the bony structures; but in many cases the diagnosis is made with extreme difficulty, and then the results of treatment—more especially when the history of the individual case cannot be satisfactorily obtained—afford much aid in arriving at a conclusion.

The form of lupus described above under the name of "Jacob's ulcer" is regarded by many as being nearly allied to, if not a variety of, cutaneous cancer; by most surgical writers the latter view is taken, and Copland regards it as a connecting link between the two diseases. But its chief characteristic phenomena, especially its tedious but onward ulcerative progress, not implicating the bony tissues, the freedom from pain which marks its course, the non-contamination of the constitution generally, and the absence of the hypertrophied condition so characteristic of cutaneous cancer, sufficiently identify it, in my opinion, with the other lupoid affections.

Prognosis.—In every form of lupus, the prognosis, though favorable as regards the general health, must be more or less unfavorable with respect to the local disease, the latter being by many regarded as altogether incurable; yet, although most tedious and obstinate, in the majority of cases resisting even judiciously applied and appropriate treatment for years, it not unfrequently eventually yields, the destructive process of ulceration is arrested, and the affected parts heal. The superficial variety of lupus is the least important in all respects; but even it is most rebellious, and the diseased surface rarely takes on a healthy action until after several months

of treatment; and after apparent cure it is very apt to re-appear in the old cicatrix. Lupus serpiginosus, when of small extent, is in some cases very amenable to treatment, but when it affects an extended portion of the integuments it is rarely cured in a shorter period than from a year to a year and a half or two years; and, often after the disease is apparently perfectly removed, it breaks out afresh in one or two of the spots which had healed, when it lingers obstinately for months. Lupus devorans is both the most severe and the most obstinate of the several varieties of the disease, its destructive progress, unless when submitted to treatment at a very early period after it commences, is scarcely to be arrested, nor does it seem ever to tend to spontaneous cure; the form denominated "Jacob's ulcer" is, in my experience, perfectly incurable in all its stages. Like most other cutaneous diseases, the longer the duration of lupus the more difficult is it to treat it successfully.

As regards the *pathology* of lupus, it is manifestly nearly allied to cancer, especially by its malignancy, and the appellation for the group of diseases of the skin in which it is here placed has, I think, been therefore happily chosen by Dr. Copland; yet they differ remarkably, in the latter being almost invariably marked by a general contamination of the system, which is never witnessed in the former; this is well evidenced by the glandular system in the neighborhood of the disease not becoming affected in the course of lupus, even when it has existed for years.

Treatment.—The administration of constitutional remedies, in the treatment of lupus, is regarded by many as being useless, and the employment of local applications is solely relied on, but I agree with those who consider both to be requisite, and it is only from a prolonged perseverance in remedial measures, judiciously selected, that good results can be expected to follow in this obstinate and malignant affection. The intimate connection that exists between the disease and scrofula being an admitted fact, the general treatment should consist in the use of those remedies which are calculated to correct that vitiated condition of the system, and the avoidance of all

medicines which experience has proved to disagree with scrofulous individuals, or to aggravate any local derangement under which they may labor. The preparations of iodine and of iron, cod-liver oil, and the vegetable tonics are, therefore, especially indicated in the treatment of the different forms of lupus, and general hygienic measures, calculated to invigorate the constitution and to remove its vitiated condition, should never be neglected.

Iodine in some form, given in combination with tonics or alteratives, according to individual circumstances, is the remedy which, in my experience, is most to be relied on; for the majority of cases the iodide of potassium is the preparation best adapted, but, as I have already remarked in a previous part of this work, its beneficial results are more certainly obtained by being administered in rather small doses, continued for a long time, than if it be prescribed in large quantity at first—a practice which has been recently much followed in the treatment, especially of secondary syphilitic diseases. In persons in whom the constitution is unimpaired, and the muscular and adipose tissues are well developed, it may be prescribed in somewhat the following form:—

R. Iodidi Potassii,	grana duodecim.
Infusi Cascarillæ,	uncias duodecim.
Succi Taraxaci,	drachmas duas. Misce.
Summat unciam fluidam ter indies.	

The quantity of the iodide of potassium should be increased by the addition of a grain to the mixture each time it is renewed, until it contain twenty-four grains, when it should be omitted for a few weeks, and again recommenced in a small dose. For weakly persons or those of a broken-down habit of body, the iodide of iron should be substituted for the iodide of potassium, and it may be given in decoction of fresh elm bark; when the scrofulous diathesis is very well marked, and the lupoid ulceration extensive, threatening to engage the deeper-seated structures, iodide itself will be advantageously combined with the iodide of potassium or iodide of iron: if with the former, it may be prescribed according to the formula at page 247, the arsenical solution being omitted.

Cod-liver oil also proves an excellent remedy in the treatment of lupus, especially when the disease occurs at an early age; from my own experience of its effects I do not think it is attended with so much advantage when given in the enormous doses recommended by some, as when administered in smaller quantity, and its use persevered in for a very long time: a teaspoonful, three times a day, and increased so gradually that at the end of six months, two tablespoonfuls, as frequently given, will be the amount arrived at, a dose which need not be exceeded, is the manner of administering the medicine that I have seen prove eminently successful in lupus. By some of the French dermatologists, however, many of whom speak in rather extravagant terms of its efficacy in this disease, the dose is increased as rapidly as the stomach will admit, until from a pint and a half to two pints are taken in the twenty-four hours.

Arsenic alone, or combined with iodine, has been highly recommended by many practitioners for the treatment of lupus; the late Dr. Anthony Todd Thompson was in the habit of relying chiefly on it in the form of the iodide of arsenic. I have found this preparation very useful in the form described above as constituting lupus superficialis, but in the other varieties of the disease it has not proved so beneficial in my hands as iodine and the iodide of potassium. The liquor arsenici et hydrargyri hydriodatis, of the last *Dublin Pharmacopœia*, proves of especial service in those cases in which there may exist in the system an hereditary or acquired syphilitic taint.

So many other medicines have been at different times, and still are, proposed for the treatment of lupus that it would be almost impossible even to enumerate them; a few, however, require to be shortly noticed. The animal oil of Dippel—obtained in the dry distillation of harts-horn shavings in close vessels—has acquired some character on the Continent; it is given in doses of five or six drops at first, gradually increased to twenty or twenty-five. The chloride of barium and chloride of calcium have both been much used; that they possess some efficacy, due certainly to their anti-scrofulous powers, has

been proved by the publication of several cases in which a cure resulted from their administration. Various preparations of mercury have also been tried for the treatment of lupus, and the red iodide is especially recommended by M. Rayer for those cases in which there is much hypertrophy of the integuments; but in consequence of the injurious effects so often occasioned by the administration of mercurials to persons of the scrofulous diathesis, I cannot agree with those who advocate their use in this disease.

The general hygienic measures to be adopted require merely to be alluded to; they consist, of course, in attention to every circumstance which can fortify the constitution, and remove the depraved condition on which the presence of the local disease depends: the chief of these are, breathing a dry, pure air, the use of nourishing, unstimulating diet, residence on the sea-shore, and when the strength admits, cold salt-water bathing.

The *local* treatment of lupus has at all times attracted more attention than the constitutional, and, as before remarked, many consider that the disease can by it alone be cured. It may be considered under two heads: first, the ablation of the affected portion of the integuments by the knife, or its destruction by caustics; and, second, the employment of astringents or other medicinal agents, calculated to promote cicatrization, or excite a new action in the parts. In the superficial variety of lupus, the chief object being to prevent disfiguration by arresting the progress of disease, the use of the knife is not admissible, for, were its employment even certain to effect a cure, the resulting eschar would occasion as much, if not greater deformity; for in the serpiginous form it is not applicable, nor has it been recommended, except by a few surgeons, to remove the hypertrophied edges; and, therefore, it is only in lupus devorans that excision holds out any prospect of being useful. An almost insurmountable difficulty, as regards its application, however, is experienced in all cases in which the disease has existed for any time, owing to the manner in which the ulceration spreads, and the consequent impossibility of removing the entire of the parts affected; when it is but of short

duration, and the deeper-seated structures are not involved, the operation has occasionally proved useful, especially in "Jacob's ulcer," but the employment of the constitutional treatment above recommended should not be neglected at the same time, as thereby alone can it be expected that the return of the disease will be prevented.

The stronger caustics, from being more easy of application, and more certain than the knife in their effects on the uneven, penetrating ulceration which characterizes this form of lupus, have been more generally employed. Those chiefly used are the nitric and hydrochloric acids, the acid nitrate of mercury, caustic ammonia, chloride of zinc, chloride of gold, caustic potash, solution of the terchloride of antimony, and arsenical pastes or powders. The chloride of zinc has many advocates; and where the edges of the ulcer are ragged and unhealthy, and the surface discharges a sanious pus, it in many cases proves useful by exciting a new action; as much of the surface as it is wished to destroy should be touched lightly with the solid salt, and the application renewed every alternate day until the desired effect is produced: the stronger acids may also be applied in the same manner. I have generally known the employment of caustic applications prove injurious in lupus serpiginosus, yet they are highly praised by several writers, nitrate of silver being usually preferred to any other; in many cases in which I have seen them used the parts to which they were immediately applied healed up temporarily, but the serpiginous ulceration from the circumference continued to spread unchecked, undermining the surrounding integuments, generally with increased rapidity. In lupus superficialis, caustics, if effectually applied, cause a worse disfigurement than the original disease, which, moreover, they do not check.

Under the second division of local applications may be noticed, first, those which, though not actually caustic, are highly stimulant and resolvent, such as the dilute acids, Donovan's solution, the animal oil of Dippel, lotions or ointments containing the chloride of zinc, nitrate of silver, caustic potash, &c. The oil of Dippel is employed very extensively on the Continent, and, it is said,

with excellent effect, especially when the nose is the part affected, as a *modifier* of the diseased action; it is applied by means of a camel-hair pencil, the surface being lightly touched with it, and the application repeated several times. The solution of the hydriodate of arsenic and mercury also proves most useful as a lotion in many cases of the disease; it is especially of service in the superficial form of the affection, the crusts having been removed by poulticing previously.

Mr. Cazenave has published his experience of the effects of the red iodide of mercury at a local application, from which it would appear to produce most beneficial results, especially in those cases attended with much hypertrophy. "Under the influence," he says, "of the application of the biniodide of mercury, frequently repeated, I have seen, after the disappearance of the sharp but fleeting local inflammation produced by it, and as a consequence probably of its general action, the hypertrophied points become resolved, the tubercles disappear, and soft, superficial, smooth cicatrices, on a level with the rest of the skin, form; in short, I have seen the most frightful cases of lupus cured without leaving any other traces than an apparently thinned skin, with white or red spots here and there, according to the length of time which had elapsed from the formation of the cicatrices."¹ M. Cazenave applies a thin layer of the powder, undiluted, to a portion only of the diseased surface at a time; it causes severe pain and much inflammation, the former lasting for six or eight hours, and the latter for three or four days; a thick crust is left, which falls off at the end of six, eight, or ten days, when, should there be occasion, the application may be renewed.

The topical remedy which I have found most useful in the treatment of lupus serpiginosus is the acetate of zinc; the ulcerated surfaces should be touched with the solid salt—care being taken to use a crystal which has not effloresced—twice a day, daily, or every second or third day, according to the degree of activity of the local

¹ *Annales des Maladies de la Peau et de la Syphilis*, Tom. iii. p. 59, 1851.

inflammation, and a lotion containing from three to five grains to the ounce of distilled water should be used, lint wet with it being applied, and the parts covered with oiled silk when practicable. In this form, as well as in lupus devorans, the local inflammation, of which from time to time rather smart attacks occur, should be checked by the application of leeches as near the affected parts as possible, but sufficiently distant to prevent the bites from becoming involved in the disease; and emollient poultices should be used occasionally with the same intention, and to remove the hard crusts which form.

No matter what local treatment be employed in the treatment of lupus, attention must be especially paid, when the nose or mouth is the seat of the disease, to prevent the natural outlets from becoming obstructed during the progress of cicatrization.

In conclusion, I may again repeat that, as the result of considerable experience in the treatment of this obstinate and serious disease, I regard the employment of topical agents as altogether secondary; they are unquestionably useful in modifying the diseased process that is going on and in exciting a new action in the parts, but they must be regarded as only auxiliary to the constitutional treatment, which should engage the chief attention of the practitioner, the fact being always kept prominently in view, that it is alone by the *prolonged* use of remedies, and diligent attention to general hygienic measures, that a favorable result can be expected. See Hutchinson, Jonathan, "A Clinical Report on Rodent Ulcer."—*Med. Times and Gaz.*, 18th Aug. 1860; and Paget, James, "Three Cases of Rodent Ulcer."—*Ibid.*

KELOÏS.

Keloïs, or Kelis, from *χηλή* a crab's claw, or from *Κηλὶς* a scar, or from *Κήλη* a tumor.

KELOÏS (*Cheloid tumor*) is an extremely rare disease of the skin, which was first noticed, in the latter end of the last century, by Retz, and was soon afterwards fully described by Alibert, who applied this name to it from a fancied resemblance which he thought it bore to the

claw of a crab ($\chi\eta\lambda\acute{\iota}$, "forfex cancerorum"): for a similar reason he first denominated it *Cancroïde*, and also because this latter term expressed the analogy which he believed to exist between the disease and cancer; it is for the latter reason that I have included it with lupus, in the order *Cancroïdes*. It consists in the development on the cutaneous surface of an irregular-shaped, or somewhat oval, hard, and prominent excrescence, slightly depressed and uneven in the centre, the edges being raised and thickened; the surface has a polished and shining aspect, of a rose or reddish-white color, marked with bright-red and white lines, and corrugated so as to present nearly the appearance of an old much-hypertrophied cicatrix, When pressed with the finger it is somewhat resilient, and the part pressed upon becomes momentarily colorless. The morbid growth, which varies in size from a few lines to an inch or more in diameter, is extremely adherent to the integuments, roots projecting from it into the deeper layers of the skin. It first appears in the form of one or more small, hard, wart-like tumors, accompanied by itching and some pain; as it increases in size the pain becomes much augmented, being of a severe stinging character, and in some cases has been described as being almost unbearable.

The cheloid tumor is most generally solitary, being, in the majority of cases which have been reported, developed on the anterior surface of the thorax, either below the clavicle on either side, or on the sternum, but in a few instances several of them have been witnessed to exist at the same time on different regions of the body; its growth is comparatively slow, it does not ulcerate, nor is it painful to the touch, and may continue indolent for years; but in a few cases it has been reported to have become gradually smaller by interstitial absorption, until it finally disappeared altogether, its site being marked by a white cicatrix. Dr. Fox is inclined to confirm the opinion of Dr. Carter, that it is a form of Elephantiasis; and Mr. Balmanno Squire considers it to be allied to Lupus.

The *causes* of this disease are very obscure; in one or two instances it has been stated to have followed local

injury, and some cases have been published in which the tumor was developed on the old cicatrix of a burn or wound, but many have with sufficient reason questioned the fact of these being examples of true keloïds. No proof exists of its being hereditary, or of its occurring in persons whose parents had been affected with cancer or scrofula, nor does it appear to be connected with any special temperament or diathesis. It would seem to affect both sexes nearly alike, but it has not been observed in early life, those who labor under it being individuals usually of mature age. Dr. Fox is of opinion that the cause of it is "a special diathesis similar to, if not a modified phase of, that of Elephantiasis."

The extreme rarity of the disease is very remarkable, and consequently its nature, history, and characteristics are not well understood, from the want of sufficient opportunity for their being studied: Mr. Wilson states that the total number of cases recorded amounts only to 24, of which he himself has seen 7; but it has been witnessed also in Ireland, casts and drawings of it existing in the Museum of the Richmond Hospital in this city, although the cases have not, as far as I am aware, been published.

Since the preceding remarks were written several other cases have been recorded, and observations written on this disease. Of these may be noted Dr. Addison, in *Med.-Chir. Trans.*, Vol. XXXVII, 1854; M. Gillette's monograph on "*Sclerema*," in the *Archives Générales de Médecine*, Dec. 1854; Dr. Robert M'Donnell, on "*Sclerema*," in the *Dublin Hospital Gazette* for 1855 and 1856; Mr. Sedgwick, in *Path. Soc. Trans.*, Vol. XII, p. 234; Dr. Alderson, and Dr. Valentine Mott, in *Med.-Chir. Trans.*, Vol. XXXVII, 1854; Dr. Henderson, in *Med. Times and Gaz.*, 14th July, 1860; and several other papers, particularly in the foreign journals, noted by Dr. Fox.

Diagnosis.—The only affection with which keloïds is likely to be confounded is cancer; it is distinguished from it by its indolent nature, its indisposition to ulcerate, the absence of contamination of the glandular system, and its peculiar site.

Prognosis.—Were it not for the extremely painful sensations which usually attend this affection it would be

of little moment, there being no risk to life, nor local dangerous symptoms likely to be occasioned by its presence. The duration of the disease is almost invariably prolonged; years elapsing in those cases in which it has disappeared spontaneously, before absorption had commenced.

Treatment.—Excision of the cheloïd tumor has been proposed and practised, but such a course seems to have been invariably unattended with successful results; the wound made was difficult to heal, and the disease returned after some time either in the cicatrix or in the integuments of some other region of the body. The spontaneous cure of the affection by absorption having occurred in, comparatively speaking, many cases, should inculcate the propriety of abstaining from meddlesome interference, and teach that reliance ought to be placed chiefly on constitutional treatment by means of alteratives and corrigents where necessary, and the local use of mild stimulants or sedatives to allay pain. With the latter view I would suggest the employment of an ointment containing the iodide of potassium and chloroform. Cazenave recommends the sulphur douche; Wilson the application of collodion and the tincture of iodine; and Rayer, that firm and constant compression should be made on the tumor when its situation permits.

CHAPTER XI.

DERMATOPHYTÆ.

THE general application within the last few years of the use of the microscope in investigating diseased conditions of animal structures has afforded most important and valuable assistance to the morbid anatomist and pathologist, by throwing new light upon much that was before obscure; our knowledge of cutaneous affections has, along with other subjects in practical medicine, been advanced thereby, and chiefly by the discovery that in certain of them a vegetable production—a cryptogamic plant—is present on the surface of the skin. It is in consequence of this discovery that a necessity has arisen for constituting the present group or order of diseases of the skin, which is termed *Dermatophytæ*—from δέρμα, “the skin,” and φυτόν, “a plant:” it includes, then, *those cutaneous affections which are dependent on, or are characterized by, the presence of parasitic plants on the diseased surface of the integuments.* By some the existence of these vegetable growths is altogether denied, while others, who admit their existence, regard them as being accidental productions, a consequence and not a cause of the disease which they accompany; the investigations, however, of Dr. Hughes Bennett, of Edinburgh, Dr. Tilbury Fox, of London, Dr. McCall Anderson, of Glasgow, and of Robin, Gruby, Lebert, and others, on the Continent, in my opinion, place it beyond doubt not only that these parasites are developed in certain diseases of the skin, but that they constitute their essential nature. In addition to the two affections, Porrigo and Sycosis, which I shall include in this order, the presence of a cryptogamic plant has also been ascertained in Pityriasis versicolor (*Chloasma*); but I agree with Dr. Bennett in the opinion that

"although this disease frequently presents epiphytes among the scales, it owes none of its essential characters to this circumstance." It has been already noticed in Chapter VI.

Other writers have included, as Dermatophytæ, herpes circinatus, plica polonica, and alopecia areata; but of these the first has been already referred to in Chapter III, and the last two will be found noticed in Chapter XIII, where also will be found a notice of onychomycosis, a parasitic disease of the nails.

Several modern writers of note devote a special order or group to "Parasitic diseases," which are by them believed to be caused by *animal* or *vegetable* parasites. As the former, called dermatozoa or ectozoa, are not here noticed in a special division, it may be well to observe that the group is held to comprehend the acarus scabiei, already noticed in Chapter III; the pediculus capitis, asserted by Mr. Balmanno Squire to be a common cause of impetigo; the pediculus corporis, asserted by the same authority to be a common cause of prurigo and urticaria; the phthirius, or pediculus pubis, noticed in Chapter V; the pulex irritans, or common flea; the acanthia lectularia, or common bug; the leptus autumnalis, or harvest bug; the steatozoön folliculorum, noticed in Chapter IV; the pulex penetrans, chigoe, chigger, or jigger, common in the West Indies and in South America; and the filaria medinensis or dracunculus, the guinea worm of tropical countries. Dr. Fox also notices the œstrus, bots, or gad-fly. For a full account of the leptus autumnalis see *Amer. Month. Jour. Med. Sci.*, N. S., Vol. XX, p. 91. Dr. Fox gives, from the *Social Science Review*, an account of the disease caused in the West Indies by the pulex irritans; Dr. Millier refers to the researches of Carter, Busk, and others, respecting the guinea-worm disease, and most writers refer for full information respecting it to Mr. Bastian's paper in the twenty-fourth volume of the *Transactions of the Linneæan Society*, p. 101.

The *treatment* of the guinea-worm disease consists in gently extracting the worm by winding it gradually on a piece of card, during which process, if the worm be broken, much inflammation and sloughing occurs.

Dr. Fox quotes several notices respecting the development of the œstrus or gad-fly, *e. g.*, *Ed. Med. Journ.*, April, 1854 (Dr. Londre's paper), and Ranking's *Abstract*, Vol. XXIX, p. 91.¹

A paper on "Animal Parasite Diseases of the Skin" has also been recently read before the British Medical Association, by Mr. Balmanno Squire; for an abstract of it see *Med. Times and Gaz.*, 19th Aug. 1865.

The consideration of skin diseases of parasitic origin has of late years been so zealously pursued as to make anything like a full discussion of the subject impossible in the limits of a practical work. Dr. Fox's *Skin Diseases of Parasitic Origin*, and Dr. M'Call Anderson's work on *The Parasitic Affections of the Skin* may be consulted with advantage on the one side; and on the other, Mr. Wilson's paper "On the Phytopathology of the Skin, and Nosophytodermata, the so-called Parasitic Affections of the Skin," *Br. and For. Med.-Chir. Rev.*, January 1864. See also, Dr. W. Abbotts Smith *On Human Entozoa*, Lond., 1863; Mr. T. Spencer Cobbold, *Entozoa*, Lond., 1864; Küchenmeister's treatise on "Animal and Vegetable Parasites of the Human Body," *Sydenham Soc. Trans.*, Lond. 1856-57; and Dr. Geo. Ross *On Ring-worm, Scall-Head, Baldness, and other Parasitical Diseases of the Head and Face*.

PORRIGO.

PORRIGO (Favus; Tinea; in German, Erbgrind, Honigwabbengrind; Scall-Head—Plate XV, Figs. 2 and 3).—This peculiar affection, which, from its appearing most frequently on the scalp, is generally described as being peculiar to that region of the body, is characterized by phenomena so distinct from those of all the other eruptive diseases which are apt to occur there, that it cannot possibly be mistaken for any of them. It is developed in the form of small, elevated, dry spots, about the size of a pin's head, of a bright yellow color, seated on the

¹ On the Occurrence of Bots in the Human Subject, by G. W. Spence and J. Matthews Duncan.

surface of the skin, which is depressed slightly by them; each spot is distinct, hemispherical, slightly concave or cup-shaped on its free surface, and convex beneath, where it is adherent to the skin. On removing the small, diseased mass, that portion of the scalp on which it was seated is found to be somewhat depressed, smooth, and shining. A single crust of the disease, or *favus*—as it has been termed, from its resemblance both in color and central depression to the superficial surface of a honey-comb—is often traversed by one, and sometimes by two hairs, which appear to grow, as it were, from the very centre or most depressed portion; this has given rise to the notion that the disease is one of the bulbs of the hair; but the fact of its appearance on other parts of the body which are quite free from hair affords a sufficient refutation of this opinion. The eruption spreads by additions to the outer edge or circumference of each crust, which thus retains its hemispherical character, until it acquires a diameter of two or three lines, or sometimes more; some of the favi on the trunk at times attain fully half an inch in diameter; on the head, however, they rarely exceed the size above mentioned. The adjacent favi, as they increase, unite with each other, and form large, irregular-shaped masses, in which the original circular form of the individual crust is in a great degree lost; the centre also of each is changed in appearance, and, instead of the cup-shaped depression, the entire surface is covered with alternate elevations and depressions, or, so to speak, ridges and furrows, concentrically arranged. The eruption thus increasing, the whole of the scalp, often, too, the forehead, the neck, and parts of the trunk, become encased in one large yellow crust, at the edges of which some favi, of the peculiar characteristic appearance, are invariably to be seen.

The crusts of porrigo are of a pale sulphur-yellow color; they are hard and dry, and break with a short fracture, exhibiting within a mealy powder, of a paler yellow than the external surface. They may generally be removed with facility from the scalp, but they bring away with them a thin layer of epidermis, which is firmly adherent to their under surface, through which

small projections may be seen with a moderate lens, sometimes with the naked eye. These projections, or processes, pass into the dermis beneath, and when the crusts are torn forcibly away blood issues from the small orifices into which they were inserted. From the very commencement of the eruption the hair becomes altered; much of it falls out, and the straggling hairs that remain are thin, broken, weak, whitish, and readily removable with the crusts of the disease, in which they are firmly imbedded. When this affection has continued for any length of time, bald patches are left after cure, on which the hair does not again grow; and even where it has been cured at an earlier stage the hair seldom regains its proper character, being often weak, thin, of a diseased appearance, and of a whitish-yellow color. *Porrigio*, in its first stage, does not give rise to either heat of the scalp or itching, and, consequently, is very rarely noticed until it is fully developed. It usually commences on the forehead, at the edge of the hairy scalp, but it spreads rapidly over the head, soon involving nearly the entire surface, the healthy patches which are left between the diseased spots being but very few, and small in extent. The eruption is also met with on various parts of the body, the trunk, or extremities; but I have very rarely seen it there except when it existed at the same time on the scalp. As the disease advances much irritation of the surface is produced; small pustules form here and there in spots as yet unaffected with the eruption: the tingling and heat are so unbearable as to compel the patient to tear the surface with his nails, even to such a degree as to cause ulceration; innumerable pediculi are endangered; the favus crusts emit an abominable odor, resembling that of mice; and a copious offensive discharge is secreted by the pustules and ulcerated spots: in short, an individual affected with this disease in its aggravated form becomes a loathsome and disgusting object.

I have already referred to the vegetable nature of this eruption; it is in the spongy, friable contents of the favi that its characters are best seen. "Reduced to powder, and placed under the microscope, it presents," says Robin,

“a mixture—1, of tortuous, branching tubes, without partitions, empty, or containing a few molecular granules (*mycelium*); 2, straight or crooked, but not tortuous tubes, sometimes, but rarely, branched, containing granules or small rounded cellules, or elongated cellules, placed end to end, so as to represent partitioned tubes, with or without jointed articulations (*receptacles or sporangia, in various states of development?*); 3, finally *sporules*, free or united into bead-like strings. The mycelium is very abundant near the inner surface of the external layer, to which it adheres. The spongy, friable mass of the centre of each favus is principally formed of sporules and the different tubes containing mycelium already described (*sporangia or receptacles?*). We often find mixed with them *mycelium* tubes, but in small quantity. All these elements pass insensibly into each other: empty tubes (*mycelium*); tubes containing small round corpuscles; tubes with corpuscles as large as the smaller sporules; sporules placed end to end, so as to resemble a hollow partitioned cylinder, with a tendency to separate at the joints; and free sporules.” Bennett has given a good drawing of this arrangement. M. Robin¹ gives a minute description of the various parts of which the fungus is composed, as well as faithful and well executed illustrations of this vegetable parasite, the correctness of which I have had repeated opportunities of verifying, sometimes with the assistance of Dr. Lyons, of this city, who has devoted so much time and talent to promote microscopical medical investigations in Ireland. The botanical characters of the plant are appended in a note.²

This is a rather rare affection, appearing, however, from the observations of those who have written specially upon it, to be more common on the Continent and in Ire-

¹ *Des Végétaux, qui croissent sur l'Homme et sur les Animaux Vivans*, par Ch. Robin. Paris: 1847.

² “ACHORION SCHONLEINII. Remak. Orbiculare, flavum, coriaceum, cuti humanæ presertim capitis insidens; rhizopodion molle, pellucidum, floccosum, floccis tenuissimis, vix articulatis, ramossissimis, anastomoticeis (?). Mycelium floccis crassioribus subramosis, distincte articulatis, articulis inæqualibus, irregularibus, in sporidia abeuntibus; sporidia rotunda, ovalia vel irregularia, in uno vel pluribus lateribus germinantia.”

land than in England. When I first wrote on this disease in 1848,¹ my experience was drawn from a limited number of cases; since then, however, I have had under my care a comparatively large number of examples—twenty-three.

It may appear at any time of life, but is very seldom met with except in childhood, from the age of 3 to 12; it may be developed on almost every part of the body, but, as already remarked, occurs with much the greatest frequency on the scalp, and next to it on the back of the trunk. When it appears on those portions of the integument which are not covered with hair the favus crusts acquire a larger size, and increase more rapidly than when it is seated on the scalp, but it presents precisely similar characters.

Great confusion long existed amongst dermatologists as to what special disease was understood by the term "Porrigo;" the many eruptions which have their seat on the scalp were at one time described as being merely varieties of a single genus, which was indiscriminately denominated Favus, Tinea, or Porrigo; this confusion has, however, been lately much removed, and the latter appellation—the others being synonymous with it—is now strictly confined to the cutaneous affection above described, which corresponds with the *Porrigo lupinosa* of Willan. Cazenave divides it into two species characterized by the form in which the crusts are developed, the one he terms *Favus disseminé*, and the other *Favus en cercles*; this is, I think, an unnecessary refinement, tending to complication, and presenting no advantage in practice. Wilson, who denies the vegetable nature of the morbid production on the scalp, describes favus, which is the name he adopts, as being a disease of the hair follicles.

The causes of porrigo have given rise to much difference of opinion, especially with reference to its contagious nature; the correctness of my adherence to the views of those who hold that it is so, which I avowed some years ago in the little work already referred to, has

¹ *Eruptive Diseases of the Scalp*. Dublin, 1848. 12mo.

been confirmed by almost every day's experience since, for I have seen numerous instances of the propagation of the disease from individual to individual, by direct contact, in the majority of cases from children to children, but sometimes even from children to adults. The mode in which I believe the contagion to be conveyed is by the propagation of the vegetable parasite, by means of the *mycelia*. But its contagious character has been denied by many on the grounds of the rarity of the disease, and the failure to produce it by inoculation, as tried by Gruby and others; the former of whom produced the disease only once out of seventy-six trials on vegetables, and not at all on animals. But Remak succeeded in inoculating his own arm in August, 1842;¹ and Bennett, who had previously failed in his own person after repeated trials, succeeded completely in 1845, in producing the disease in one of his class by inoculation and close contact of the favus crusts, obtained from the head of a boy at that time in the Royal Infirmary. An account of his experiment, and also of Remak's, will be found in the *Northern Journal of Medicine* for September, 1845, p. 202, and the account of the former will also be found in Bennett's *Clinical Lectures on the Principles and Practice of Medicine*, second edition, p. 799. Hebra has also proved its contagious property in the same manner.

Now in all these trials to generate the plant, one important fact connected with the natural history of parasitical fungi has been overlooked by all, namely, *that they require for their growth a peculiar soil*; thus we find one genus is found only on snow, another on cheese, another in yeast, different varieties on different decaying vegetable matters, and individual genera and species on various living animals and plants; nay, even different sorts on different parts of the same animal. This holds true with the *Achorion Schönleinii*; it requires for its reproduction to be planted in a peculiar soil, that is on an individual whose system is in a peculiar cachectic condition; and until it is ascertained what this exact constitution is, a single instance of its propagation by con-

¹ *Medicinische Zeitung* for 1842.

tact—and such instances are not uncommon—must be held as sufficient proof of its contagious character.

Some have held that this eruption occurs in scrofulous persons only; others, that it is an hereditary disease; but neither statement is consistent with the observation of the cases which I have seen. It appears to have some connection with, though I cannot say that it is *caused* by, poverty, filth, wretchedness, and a weak development of the mental faculties. Unquestionably where the disease has long existed, the mind is weak, and the countenance presents a somewhat idiotic expression.

Diagnosis.—With no other disease of the skin can porrigo be confounded, it is so distinctly characterized by the dry, yellow, favus crusts, and the total absence of discharge or scaly desquamation in any of its stages; occasionally pustules form, it is true, on the surrounding integuments, but they are evidently due to the irritative inflammation caused by the morbid growth on the cutaneous surface, on the application of acrid or stimulating unguents, lotions, &c. In its very early stage, when seated on the scalp, porrigo might be mistaken for the commencement of an attack of impetigo, but the rapid development of the pustules in the latter soon renders the diagnosis simple; and it does not present any features in common with the other eruptive diseases of the scalp. Should a doubtful case, however, occur, any difficulty that may exist will be at once cleared up by a microscopic examination.

Prognosis.—A disease of great gravity, and always regarded with extreme abhorrence in consequence of the disagreeable symptoms with which it is attended, its unsightly aspect, and its contagious nature, porrigo nevertheless in no respect tends to shorten life, or even to injure the general health, unless in so far that it almost necessitates strict confinement to the house, and isolation. The fatuity which is so commonly observed to accompany its advanced stages is certainly to a great extent a consequence of its existence, for it is not seen in any remarkable degree in individuals in whom the affection has been of short duration. The effect produced on the growth of the hair must also be taken into

account in forming a prognosis, as its loss is often regarded as one of the most grievous consequences of the disease; when the crusts cover the head completely, and their duration has been at all prolonged, the pressure produced by them causes absorption of the superficial layers of the derma, and consequent destruction of the hair follicles, permanent baldness then necessarily results; but when the morbid growth is removed at an early stage, although the hair is usually deteriorated and its subsequent growth injured, no ill consequences to it follow in some cases. As regards the eruptive diseases of the scalp, porrigo is the most obstinate and most rebellious to treatment of them all; by many dermatologists it has been regarded as being almost incurable, and, consequently, the most violent remedies have been proposed for its treatment, but I have never failed in curing it permanently by the simple method to be now described.

Treatment.—There is probably no disease of the skin which has been subjected to a greater variety of plans of treatment, some of them of the most painful character, than this, chiefly in consequence of its extreme obstinacy, and the opposing views which have been and are even still held as to its nature: before proceeding to speak of the remedies used by others, I shall first describe the method which has invariably succeeded in my hands, and the efficacy of which has been now for some years proved by the testimony of others. It consists in the simultaneous employment of constitutional remedies and local applications: the former, used with the intention of correcting or altering that vitiated condition of the system generally, to the existence of which is due the development of the morbid growth on a congenial soil; and the latter, to remove the diseased mass constituted by the peculiar vegetable parasite, and to prevent its reproduction.

A combination of the two alteratives which experience has proved to be the most powerful in the removal of cutaneous diseases—arsenic and iodine—has, in my experience, effectually fulfilled the requirements of the constitutional treatment. They may be given in the fluid form, as already recommended for the squamous erup-

tions, combined, if requisite, with vegetable tonics, or in the solid state, as in the following prescription, the dose ordered being that adapted for a child ten years old.

R. Arsenici Iodidi, granum.
 Mannæ duræ, grana sex.
 Mucilaginis quantum sufficit ut fiant pilulæ duodecim.
 Sumat unam ter indies.

This is the preparation which I usually prescribe in the treatment of porrigo; in some cases, after it has been taken daily for five or six weeks, headache and dryness of the mouth and fauces are complained of, which quickly disappear, however, on intermitting its use for a few days. As in the other cutaneous affections, for which these medicines prove so valuable a remedy, their administration must be persevered in for a long period, and the dose increased very gradually and slowly; they must also be given for some time after all traces of the local affection have disappeared. In decidedly scrofulous children the administration of cod-liver oil simultaneously with that of the iodide of arsenic is attended with the best effects; and in cases in which from any cause arsenic may disagree, iodine may be given dissolved in the cod-liver oil, in the proportion of the twelfth of a grain in each fluidrachm. The following is an outline of the local treatment: When the disease is situated on the scalp the hair is to be cut, *not shaved*, as closely as possible, and a large linseed-meal poultice applied, and kept on for twelve hours, so as to soften the crusts, and repeated for a second or third time if necessary. As soon as the poultice is removed, the head is well washed with a strong carbonate of potash lotion—a drachm to a pint of distilled water—and slightly brushed with a soft hair-brush or roll of lint; the scalp is then covered with the carbonate of potash ointment—a drachm to one ounce of prepared lard and a fluid drachm of glycerine—spread on lint, and over it a closely-fitting oil-silk cap is placed: the ointment is renewed twice daily. By the use of these applications the crusts of the eruption are generally completely removed in from two to three days. The carbonate of

potash ointment is, at the expiration of this time, replaced by one containing the iodide of lead, in the portion of half a drachm of the iodide to an ounce of prepared lard, which is to be renewed morning and evening, the head being well washed with the carbonate of potash wash every time before the ointment is reapplied. In some cases it will be found that the iodide of lead ointment excites a certain degree of inflammation of the surface of the scalp after it has been used for some days; when such occurs it should not be applied for a day or two, but the lotion may be employed alone three or four times daily. After this first attack of inflammation disappears it rarely recurs, although the use of the ointment be persisted in for months. The strength of the ointment should be increased after a fortnight; and if the disease again appear, even to double that above indicated. The oil-silk cap should be kept on the head until a cure is effected; the advantage derived from it is twofold: in the first stage of treatment, by keeping the hard and firmly planted crusts of the disease in a constant atmosphere of warm moisture, it softens, and thus renders them more easily removable; and in the after-treatment the mucedinous vegetable being retained by it in the closest contact with the iodide of lead and the emanations arising therefrom, is more certainly destroyed, and its reproduction prevented.

After continuing this treatment for at least three weeks or a month all external applications should be stopped, and the hair allowed to grow, so as to ascertain if the fungus will be reproduced; for it often lies dormant, and suddenly shoots forth, increasing rapidly when no longer subject to the action of the iodide of lead. Should it again return, the local applications must be had recourse to as before, immediately on its appearance. The administration of the iodide of arsenic should be continued until we are quite satisfied that the cure is complete.

During the entire progress of treatment the patient must be kept on a strictly milk and farinaceous diet, and the bowels regulated by the administration of mild mer-

curial alteratives and saline cathartics—especially the saline mineral waters—when necessary.

A most cruel, almost barbarous, method of treating porrigo, when it occurs on the scalp, originally proposed in the ancient days of medicine, is still followed to a great extent on the Continent. It consists in the application to the hairy surface—the crusts of morbid growth having been previously removed as much as possible by poulticing, &c.—of some adhesive plaster, such as Burgundy or common pitch, or ammoniacum, spread on strips of stout calico, which, being caused to adhere firmly, and left on for several days, are torn off in a direction opposite to that in which the hair grows, so as to remove as much of the latter as possible; and they are applied again and again until the entire of the scalp is completely deprived of hair. The sufferings occasioned by this proceeding are, as may readily be imagined, something horrible, and the Brothers Mahon, who strongly advocated its employment in a somewhat modified form, mention that even death has resulted from it. As a remedial measure, it originated in the false idea that the disease was an affection of the hairs solely, and that by their total ablation it would of necessity be cured; and in modern days it has been continued chiefly from a theory which found many supporters, that the production of perfect baldness would suspend the morbid action sufficiently long to allow the diseased surface to return to a normal state.

A host of powerful topical applications have been used in the treatment of porrigo:—the strongest caustics; blisters; ointments containing quicklime, the sulphuret of lime, tartar emetic, arsenic, pepper, &c.; lotions of corrosive sublimate, and of other irritants and stimulants; but inasmuch as the method of treatment which I have recommended above has proved invariably successful in my experience, this simple enumeration of them will suffice here.

In addition to the preceding remarks of Dr. Neligan, it may be observed that epilation is frequently resorted to, and is even considered necessary by some physicians. Dr. Jenner uses sulphurous acid locally; Dr. Bennett

makes a similar use of cod-liver oil; Hebra applies alcohol; and in two cases treated by the Editor, during the present year, the *tinctura saponis viridis cum pice* of Hebra was found very useful. The tincture was smeared over the scalp, and the entire mass was easily removed by a poultice, leaving the surface quite clear. Thus it answered the purposes of the pitch-cap without the barbarity of that horrible application. The admirable remarks of Dr. Jenner in the *Med. Times and Gazette*, for 20th August, 1853, p. 181, and Dr. Corrigan's concise and comprehensive clinical lecture in *Dub. Hosp. Gazette* for August 15, 1845, may be consulted with great advantage; as also Dr. Moore's paper on Cutaneous Diseases, *Dub. Hosp. Gaz.*, 1859, p. 117.

No matter on what part of the cutaneous surface porrigio may be developed, the constitutional and topical remedies to be employed are the same.

SYCOSIS.

Sycosis (Plate XV, Fig. 1).—It is conjectured that this term, which is of very ancient origin in medicine, was applied to designate the cutaneous affection which is now understood by it, or one nearly allied thereto, from a fancied resemblance which the eruption bears to the rough exterior of a fig (*σῦκος*): from the special seat of the eruption it has, by many modern writers, been denominated *mentagra*, which must therefore be regarded as synonymous. By Bateman the disease was classed in Willan's order of the Tubercula, from which it has been removed, together with Acne, to the order Pustulæ, by those dermatologists of the French School who have adopted an artificial arrangement of diseases of the skin. Mr. Erasmus Wilson, who in his latest work (*Student's Book*, p. 457) describes it as "a dermatophytic disease," formerly regarded it as being nearly allied to Acne, and consequently described it with that affection in the group of "Diseases of the Sebiparous Glands" in his earliest classification. As regards the appearance of the eruption, in one of its stages it certainly bears much resemblance to acne in being more or less pustular, but the pustules

which are present are, in my opinion, the result of irritative inflammation, caused by the existence of a parasitic vegetable production, first described by Gruby, and, since the publication of his observations in 1842, by other observers also. As the result of repeated microscopic examination I fully coincide with M. Gruby and Dr. Hughes Bennett as to the existence of this parasitic cryptogamic plant in sycosis; I have therefore placed it with Porrigio in the group of cutaneous diseases to which the term Dermatophytæ has been applied. In this view most modern dermatologists agree.

This affection, the site of which is limited to that portion of the face on which the beard grows—the chin, the cheeks, and the upper lip—rarely extending to the integuments immediately adjacent, is developed at first by the appearance, around the roots of the hairs, of slightly inflamed-looking elevations, on which a dry, grayish scurf soon appears; this increases pretty quickly, and its presence exciting inflammation, which is much augmented by the use of the razor in shaving, conical pustules soon form, and mask much the original character of the disease. The eruption escaping notice in most cases in its early stage has caused it to be described as being pustular from the first, but careful observation has convinced me that the pustules are secondary, and that they originate from the irritation caused by the vegetable parasite, which must therefore be regarded as the essential characteristic of this affection. The crust or scurf increases very slowly in extent, but, the attendant inflammation attacking the subcutaneous structures, is accompanied by much heat, pain, swelling, and tension, which are further augmented by the formation of the pustules; these pustules mature slowly, and when they at length burst, a dry, hard, brown scab forms, which is very persistent; and if its removal be attempted, the surface to which it adheres bleeds freely, and is very painful.

In the commencement of the disease a small portion only of the skin is affected, and the attack is often of short duration, the crusts and scabs falling off and the surface presenting a tolerably healthy appearance, reddish stains marking the previous site of the morbid growth;

but most usually the eruption returns after a short time, when it spreads more rapidly and engages a much larger extent of surface, the local symptoms also being more severe. After repeated outbreaks, thus characterized, the integuments of the chin become generally much hypertrophied, of a dusky-red color, hard, and covered, in patches of a greater or less extent, with a thick, grayish crust pierced by the hair of the beard, with hard, dry, brown scabs, from beneath which pus exudes here and there, and with conical, elevated pustules, many of which, in consequence of their being developed over the site of a hair-follicle, are perforated by hairs. The inflammatory action, when sycosis presents these aggravated symptoms, is usually very severe, small abscesses sometimes form in the subcutaneous areolar tissue, and engaging the hair-follicles, the beard falls out in patches, and permanent bald spots on the face result. Although the disease is in the majority of instances confined to that portion of the chin on which the beard grows, in very severe cases the upper lip and the surface covered by the whiskers are also engaged, and occasionally it is confined to these parts alone.

In 1842, M. Gruby first announced to the French Academy of Sciences his discovery of the existence of a cryptogamic plant¹ surrounding the roots of the hair of the beard in sycosis, and he believed that its presence constituted a previously undescribed variety of the disease, which he proposed to term *Mentagra contagiosa*. This parasitic vegetable does not appear above the surface of the integument, and thus differs altogether from that of Porrigo. "On examining the crusts or scabs under the microscope," writes M. Gruby, "they are seen to be composed of epidermic cells; but a microscopic examination of the hair demonstrates that the entire of that part of it which is inserted in the skin is surrounded by cryptogamic plants, which form a layer between the sheath of the hair and the hair itself, so that the hair is placed, as it were, in a cryptogamic sheath, just as a finger in a glove. But it is a remarkable fact that the parasitic growths never extend

¹ *Microsporon mentagrophytes*.

above the surface of the cutaneous epidermis: they have their origin in the matrix of the hair, and in the cellules of which its sheath is composed, and they increase so as to envelop the portion of the hair inserted in the skin. The *sporules* are almost innumerable in every part of this sheath, and are firmly adherent both to it and to the hair itself, so that it is difficult to separate them without tearing the sheath."¹ The stems of the plant are granulated in the interior, and are bifurcated at angles of from 40° to 80°. M. Gruby has given a table of the distinctive characters between the parasitic cryptogamic of porrigo and of sycosis; but Vogel, who corroborates his views as to the existence of the vegetable growths—the correctness of which has been denied by many—regards them as being only varieties of the same species.

Sycosis is a rather rare affection, and its *causes* are consequently obscure, the only manifest one being contagion, the disease being propagated, as in porrigo, by the *mycelia* of the parasitic vegetable; of this an example is recorded by M. Foville, who witnessed the transmission of sycosis to several individuals by means of a razor which had been used in shaving a person affected with it. To enable the disease to be communicated by contagion we must, however, believe in the pre-existence of a peculiar constitutional state of the system, as in porrigo. It, of course, affects adults and persons of the male sex only; one or two instances have been recorded of its having been witnessed in females, but it is probable some other cutaneous eruption was confounded with it. The irritation produced by shaving, and the use of acrid shaving soaps, in persons of a delicate skin, are usually enumerated among the causes of sycosis; but, although they must be regarded as a means of keeping up and of aggravating the disease when once it is developed, I do not consider that it can be thus originated; they unquestionably often cause other affections of this region of the skin, which are very often mistaken for this disease.

Diagnosis.—Acne, impetigo, ecthyma, furunculi, and syphilitic eruptions on the face, when they appear on the

¹ *Comptes rendus des Séances de l'Académie des Sciences.* 1842, p. 512.

chin or the lips, are not unfrequently confounded with sycosis, especially when they become chronic, and, indeed, by some dermatologists, all pustular eruptions when seated on that part of the face on which the beard grows, are denominated sycosis; this term, however, should, I think, be restricted to designate the disease above described, as being characterized by gray and yellow crusts or scales and a thickened and indurated condition of the integuments, and attended with the development of conoidal pustules, terminating in dry, brown, adherent scabs; in doubtful cases a microscopic examination of the roots of the hairs will aid the diagnosis.

Prognosis.—Although seemingly not injurious to the general health, sycosis is a cutaneous disease of much gravity in consequence of its extreme obstinacy, the great suffering it occasions, and the repulsive appearance which it gives to the face of those who suffer from it. If submitted to treatment in its early stages, it is in most cases readily cured, but it is extremely apt to return, and almost invariably in a more severe form than at first; when once it has become chronic it usually resists every plan of treatment for years and sometimes lasts for life; or, if removed, leaves its disfiguring traces behind, in the form of hypertrophied livid-red patches, on the parts which had been affected, and often in the existence of irregularly-shaped, uneven, bald spots, on which the beard is not reproduced. Such being the character of sycosis, as regards its duration and ultimate results, it is of the utmost importance that the disease should be carefully diagnosed before a prognosis be formed.

Treatment.—The first point to be attended to in the treatment of sycosis is the state of the general health, which will be found more or less deranged in most persons affected with the disease; and the condition of the digestive organs especially demands attention. To regulate it, mild mercurials, purgatives, alteratives, or tonics should be prescribed, according to the indication in each case; and when the eruption has been of long standing, and engages an extended portion of the integument, preparations of iodine with the vegetable tonics and diaphoretics should be administered. As regards the local

treatment, the first indication is to counteract, as far as possible, the irritation caused by the growth of the beard; with this view the use of the razor should, from the first, be altogether omitted, and the hair kept cut as close as practicable with a sharp pair of scissors during the entire progress of the treatment. The application of three or four leeches beneath the jaw or behind the ears, once or twice a week, during the inflammatory stages of the disease, or whenever the affected parts present a swollen or irritated appearance, is productive of especial benefit; in the more chronic stages, or when it has been of long duration, they should be used with caution, and their application repeated not oftener than twice a month. Numerous topical remedies have been recommended for the treatment of sycosis: that which I have found most useful is a cerate containing calomel and chloroform, as in the following formula, applied three times daily:—

R. Calomelanos,	grana triginta.
Cerati Galeni, ¹	unciam.
Chloroformi,	minima duodecim.
	Misce.

But in very obstinate cases, or those which resist the use of this combination, the iodide of lead ointment, as recommended for the treatment of porrigo, with the addition of the quantity of chloroform above prescribed, will be found of much service. Whichever be employed, the diseased surface should be well sponged previously to each application with equal parts of new milk and the weak alkaline or lead-wash. The ointment of the iodide of sulphur, also, has been highly recommended by many for the treatment of this disease, and in some very obstinate cases I have found it of service. Attention to diet and regimen is particularly demanded in all cases, the use of spirituous liquors and of all rich or heating articles of food being carefully eschewed.

Madura Foot.—Most modern dermatologists notice an affection peculiar to India, called the *Madura foot*, *Fungus foot of India*, or *Mycetoma*. Dr. Fox believes it to depend on the presence of a parasite which makes its way beneath

¹ See Sixth (Macnamara's) Edition of Neligan's *Medicines*, p. 291.

the integuments of the foot to the bones, producing symptoms closely resembling caries. Numerous sinuses lead to the diseased bone, and give exit to fungous elements in the form of little black or white masses, together with their sero-purulent or viscid secretion. The structures of the foot are found studded with masses of various sizes, black, red, or white, and they may be picked out from apparent cavities lined by a special membrane. Dr. Fox, from whose description this account is condensed, remarks that the joints are healthy, and that no caries exists. The fungus is called *Chionyphe Carteri*. The disease is of no special interest to practitioners in this country.—See Carter, H. V., "On Mycetoma," *Br. and For. Med.-Chir. Rev.*, July, 1863.

Mention has been already made of the propagation of epiphytic disease by contagion; parasitic germs are also believed to be transmissible from men to animals, and *vice versâ*. In the *Dub. Qu. Journ.* for May, 1865, Dr. Frazer has given instances in point, in a paper of his entitled, "Remarks on a Common Herpetic Epizootic Affection, and on its Alleged Frequent Transmission to the Human Subject;" and that it is not a rare condition we see on the authority of Von Bärensprung (*Brit. and For. Med.-Chir. Rev.*, July, 1857, p. 263), and Bazin (*Leçons sur les Affections Cutanées Parasitaires*, second edition, p. 126). In the course of a paper on Onychomycosis, by Mr. Purser, M.B., of this city (referred to in Chapter XIII), the writer remarks that "Dr. Lowe has found epiphytic disease with great frequency among brewers, and attributes it to contact with the growing yeast. I may mention, however, that with unusual opportunities for observing the diseases of brewery laborers, I have been unable to confirm the observations of Dr. Lowe."—*Dub. Quart. Journ.*, Nov. 1865, p. 359.

CHAPTER XII.

THE SYPHILIDES.

As a consequence of the absorption of the syphilitic poison into the system during the existence of the primary or immediate symptoms of the venereal disease, several secondary affections are in most cases developed in a space of time, the exact limits of which experience has not yet enabled us to define, but which usually varies from six weeks or two months to from six to twelve months; amongst these, cutaneous eruptions hold a prominent position, chiefly in consequence of their extreme frequency and their disfiguring effects. The diseases of the skin which owe their origin to this cause present the same elementary characters as those which are so produced, and may assume in different cases the form of nearly every variety of eruption which has been described in the preceding pages; but they have certain specific features by which they are readily distinguished, and the treatment by which their removal is to be effected consists in the employment of remedies calculated to eradicate from the system, or counteract the effects of the constitutional taint to which their existence is due. It is for these reasons that most modern dermatologists have thought it necessary to describe the syphilitic eruptions as constituting a distinct group of cutaneous diseases.

Secondary syphilitic symptoms, more especially those which affect the skin, may also be developed in individuals who have never had the primary disease, the venereal virus being transmissible from parent to child; thus, a cutaneous eruption is not uncommonly witnessed soon after birth, the origin of which may be traced to the previous occurrence of syphilis, whether primary or secondary in either parent, it may have been even many

months previously. Secondary symptoms are also by many practitioners, chiefly those of the English school, believed to be directly communicable by contagion, as in the breast of a nurse being affected by suckling an infant who has a venereal eruption on the mouth, by the act of kissing, &c.; but the truth of this view, one so difficult to be proved, has been ably impunged by M. Ricord—an analysis of whose observations has been given in the twelfth and thirteenth volumes of the *Dublin Quarterly Journal of Medical Science*—and his arguments, fully corroborated by my own experience, incline me to agree with the opinion, that secondary symptoms are not contagious.

Syphilitic cutaneous eruptions have certain features in common by which they are specially characterized and distinguished from other diseases of the skin; these it will be well to consider shortly before speaking of the individual varieties.

Since they were first recognized as being dependent on a special cause, it has been noticed that although the syphilides may differ in the elementary form which they assume, they invariably present a peculiar dull tint of a brownish or coppery hue, which is more or less evident in all their stages, and also that they are rarely accompanied by the active, local inflammatory symptoms which often attend other cutaneous eruptions. The shade of color by which they are marked varies in different cases from a pale brown to a dull copper, the difference depending both on the natural color of the complexion and on the degree to which it is effected by the syphilitic cachexia; thus, when the secondary eruptions appear in a short space of time after the occurrence of the primary symptoms, the hue of the diseased surface is of a less dull tint than when they are not developed for several months, the venereal virus affecting the system more, and consequently producing a more decided constitutional effect, the longer it has lain dormant in the system. For the same reason the more acute forms of syphilitic eruptions, or those which are occasionally attended with some degree of local inflammatory action, occur either when the pri-

many symptoms are still present, or shortly after they have disappeared.

Another remarkable feature which the syphilides possess in common is a tendency of the eruption, no matter where situated or of what form, to assume a circular or annular shape as regards its distribution, and to spread over the surface of the body in rings or crescentic-shaped patches; this is especially remarkable when they are of the papular, the squamous, and the hypertrophic types, and least manifest in the syphilitic maculæ and pustulæ.

They are also characterized by their more general occurrence on the exposed regions of the skin, especially on the scalp, the forehead, the cheeks, and the *alæ nasi*, than on those parts which are ordinarily covered; the eruption, too, is more thickly disseminated there. They appear, however, more frequently on the trunk of the body than on the extremities, being especially developed on the back and the shoulders.

Lastly, syphilitic eruptions engage the more deeply seated cutaneous structures to a greater extent than the non-specific diseases of the skin, as is evident by the greater hypertrophy of the integuments that attends them, the firm, indurated feel by which they are characterized, and the greater elevation over the surface of those which are papular or pustular. They are, moreover, essentially chronic in their nature; the stains which remain on the skin after they have been cured are usually very permanent; and they are even more apt to return than the other cutaneous eruptions, which are complicated by no special constitutional taint. Ricord has noticed *sub-sternal tenderness* as a symptom of acquired syphilitic taint; and Dr. Brodrick has more recently called attention to this, which he believes to be a diagnostic sign.— See *Madras Qu. Journ. Med. Sci.*, Oct. 1862.

The development of the secondary symptoms of syphilis, in the form of a disease of the skin, is almost invariably preceded and accompanied by well-marked signs of derangement of the system generally. The individual about to be affected may have recovered in all respects from the immediate consequences of the primary

attack, and even a considerable period of time may have elapsed, during which he seems to be and feels in the enjoyment of his ordinary health, when, without any manifest exciting cause, a degree of cachexy is established: the complexion becomes sallow and earthy-looking, unwillingness to take part in any active exertion, whether of mind or body, is experienced, the appetite fails, thirst becomes constant, often extreme, pains in the muscles and bones, much exacerbated at night, are complained of, and venereal periostitis and sore throat in some cases precede and in others accompany the cutaneous eruption which now appears; the outbreak being in general immediately preceded by a pretty smart feverish attack. To a certain degree the syphilides resemble the eruptive fevers, and by many writers the analogy between them has been made a subject of special observation: the similarity consists in both having a stage of incubation following the contagion, a period of febrile oppression preceding the eruption, and a characteristic fever attending its development, which ceases to a greater or less extent when the eruption appears fully on the surface.

As the scope of this work does not admit of any account being given of the other secondary symptoms of the venereal disease which usually accompany the syphilitic cutaneous affections, and which in many cases aid much in arriving at a correct diagnosis between them and the non-specific affections of the skin, I shall now proceed to speak of the special characteristics of the individual eruptions, describing them in the order of classification which I have adopted, as they present the symptoms of the groups therein contained.

Reference may here be made to Cazenave's *Traité des Syphilides*, in which the whole subject is discussed at considerable length, and to the beautiful plates accompanying that well known work. With regard to the importance of a knowledge of the secondary symptoms of syphilis in connection with the diagnosis of the subjects of this chapter, a most concise, brief, and intelligible definition of them and of the syphilides will be found in the valua-

ble work on *Surgical Diagnosis*, by Dr. George H. B. Macleod, of Glasgow.

SYPHILITIC EXANTHEMATA.

The SYPHILITIC EXANTHEMATA may present the apparent phenomena of Erythema, of Urticaria, or of Roseola.

Syphilitic Erythema is characterized by the occurrence, in an individual whose system has been tainted with the venereal poison, of irregularly-shaped, dingy-red, or copper-colored patches, more or less circular, but un-circumscribed, intermingled with which generally are numerous small, rounded elevations of a darker shade; the eruption in the majority of cases thus resembles erythema papulatum, from which it is chiefly distinguished by its peculiar color, and the other concomitant secondary symptoms which are almost invariably present. The patches of eruption are permanent, not fugacious; and although they fade somewhat, do not disappear, even on firm pressure; they are most usually witnessed on the forehead or some other part of the face, and on the chest and shoulders; in some cases they are confined altogether to the palms of the hands, when they are extremely obstinate, recurring again and again, even after they have apparently yielded to treatment. This eruption is at times ushered in by rather smart febrile symptoms, but in general it is not attended with any well-marked disturbance in the system, nor is it accompanied by local pain, heat, or itching. It is rather a frequent form of syphilitic cutaneous disease, and not uncommonly complicates many of the other varieties.

Syphilitic Urticaria is especially marked by being attended with the characteristic burning and tingling sensations of the ordinary disease; it resembles in shape and mode of development urticaria tuberosa, and like it is seated chiefly on the extremities, but it differs in being of a dull red or violaceous tint, the centre of each elevation being of a coppery hue; it appears, too, generally during the night, when the local annoyance it produces is also most troublesome, but it does not fade away,

although it is less prominent, during the day. It is an uncommon form of syphilitic eruption, but when it does occur is extremely obstinate. By some dermatologists it is stated that syphilitic urticaria is not unfrequently developed on the skin as a symptom of the primary disease, in consequence of its appearing while a blennorrhagic discharge is present; but when an eruption of urticaria is witnessed in such cases, it most probably always depends on the administration of copaiba, which has been before noticed as being the cause of the disease.

Syphilitic Roseola (see Cazenave's Plate I).—This is the most common of the secondary eruptions belonging to the group; it generally appears in from four to six weeks after the apparent cure of the primary symptoms, but sometimes even months elapse before the outbreak. Cazenave and Wilson both describe it as occurring on the skin while chancres still exist on the genital organs, and also as a frequent concomitant of blennorrhagia; but Ricord, with whose views my experience coincides, regards its causation in such cases to be rather referable to a previous venereal attack; at all events all must admit the almost total impossibility of arriving at a true history of the precedent occurrences in individuals laboring under any of the symptoms of syphilis. The eruption is developed usually on the forehead, and the upper part of the face, but sometimes on the trunk and extremities also, in the form of small circular patches, scarcely elevated above the surface of the skin; they are of a dull rose-red or bronze hue, and fade but slightly on pressure. The individual rings do not at first exceed the size of a shilling, but, gradually increasing, two or more coalesce, so as to form large circumscribed patches, the borders of which, however, still retain an annular character. The outbreak of the eruption is in general preceded by some slight febrile symptoms; it comes out rather rapidly on the skin, being often fully developed in twenty-four hours, and it runs a more acute course than most of the other syphilitic cutaneous affections. Occasionally slight itching attends it, but this soon disappears with some superficial epidermic desquamation; in all cases copper-colored stains for some time mark the site of the eruption after

it has disappeared. As in ordinary roseola, a similar eruption on the throat very frequently is present in the specific form, independently of the usual secondary venereal affection of that part. Syphilitic roseola occurs not unfrequently in infants as one of the symptoms of congenital syphilis.

SYPHILITIC VESICULÆ.

The SYPHILITIC VESICULÆ may appear in the form either of Eczema, of Pemphigus, or of Rupia; by some writers it is stated that a secondary venereal eruption, agreeing in its local phenomena with Herpes, also occurs, but this I have never witnessed, and the descriptions of it which have been given are, I think, more applicable to Eczema.

Syphilitic Eczema is a rare variety of secondary symptoms; but well-marked cases of it from time to time occur, and of these I have a most characteristic example at present (1852) under my care. The eruption appears chiefly on the face, the scalp, the ears, the trunk of the body, and the region of the genital organs, rarely extending to the extremities; the vesicles are developed somewhat numerous on small, nearly round patches of skin, of a reddish-copper color; these patches gradually enlarge, and additional vesicles are developed on them; but no matter what size they may attain by coalescing, the outer border still retains more or less of a circular character, and the disease spreads in an annular form, distinct rings sometimes appearing at the edges. The vesicles maturate slowly, and are accompanied by comparatively slight serous discharge; the stains attended with some epidermic exfoliation, remain on the surface of the skin for a considerable period, and fresh crops of vesicles are from time to time developed on them; the integuments, however, do not become thickened and fissured, as in non-specific eczema. In some cases, when the eruption has existed for a long time, or is attended with more active inflammation than usual, it presents many of the characters of eczema impetiginodes, but the crusts or scabs which form are dark brown or blackish,

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hard, dry, and very persistent. Syphilitic eczema is generally late in being developed after the disappearance of the primary symptoms, several years not uncommonly elapsing, so that if we were to reckon, as some do, from time, and not according to order of occurrence, it might be classed in most cases as a tertiary and not a secondary affection.

Syphilitic Pemphigus is a very rare form of venereal eruption, which occurs more frequently, however, in newborn children than in adults. It is not preceded by any apparent constitutional disturbance; several moderately sized bullæ are simultaneously developed generally on the palms of the hands and the soles of the feet, but I have seen them on the buttocks also; each bulla is surrounded by an areola of a dull violet tint; the contained fluid is turbid from the first, does not completely distend the epidermis under which it is contained, and is rather slowly absorbed, the dark stain remaining. After the absorption of the effused serum, the spot on which the bulla was situated most generally becomes the seat of an unhealthy ulcer, and then the disease almost invariably proves fatal.

That Syphilitic Pemphigus occurs at all in the adult is doubted by some; and others extend this doubt to its existence in children. M. Diday believes the first condition to be rare—"if it occur at all;" and MM. Gibert and Bazin deny its existence altogether. M. Ricord, however, does believe in its existence in the adult, and so does Dr. M'Call Anderson.¹

Syphilitic Rupia (see Cazenave's Plate III) presents nearly the same characters as the prominent variety of the non-specific eruption. The vesicles, which are rather large and flattened, are developed in successive crops, especially affecting the face, but appearing also on nearly every region of the body, being most rare on the hands and feet. Each bulla is surrounded at first by a tolerably broad margin of a dull red or copper color, over which, as in ordinary rupia, the characteristic crust gradually

¹ Syphilitic Pemphigus in the adult. Is there such a disease?—*Glasg. Med. Journ.*, July 1st, 1864.

extends. The crust is large, remarkably prominent, extremely hard, and very adherent to the integuments; and when removed from the surface it leaves a deep, unevenly ulcerated pit, slow to heal, and on which a similar crust, but usually of larger size, is rapidly developed. This form of secondary eruption is rarely witnessed for a long time, often not for several years, after the cure of the primary symptoms, and is of most frequent occurrence in persons advanced in life, or in those with a broken-down habit of body; it is, therefore, attended with much constitutional derangement, the result of the saturation of the system with the syphilitic poison. In extreme cases the symptoms are of a grave character; the greater portion of the cutaneous surface is thickly set with the black, prominent, horny-looking crusts, giving a frightful appearance to the countenance; the throat is deeply ulcerated, and periostitic nodes exist over the bones of the legs and on the cranium; severe nocturnal pains are present, and the individual not uncommonly dies, a victim to syphilitic cachexia; or, should recovery take place, the cure is most protracted. Cazenave speaks of syphilitic rupia as being very rare, but in my experience it is a rather frequent form of secondary venereal eruption.

SYPHILITIC PUSTULÆ.

The SYPHILITIC PUSTULÆ may occur in any of the three forms which characterize this group, viz., as Acne, as Impetigo, or as Ecthyma, and are among the most frequent of the venereal secondary eruptions.

Syphilitic Acne (see Cazenave's Plate V), which is the most common of the three, occurs usually on the ordinary sites which the disease, when not specific, occupies, being especially witnessed on the forehead. The pustules appear distinct from each other, and are very rarely surrounded at first by any change of color in the skin; they are developed in the form of hard, inflammatory-looking papular elevations, about the size of a small pea, and of a livid-red color; on the second or third day after their appearance, purulent matter forms at their apex, which

is somewhat flattened; this gradually increases in quantity, extending into the substance of the derma, and at length the pustule giving way at its summit, pus is effused, which concretes quickly into a hard, dry, brown scab or crust. During the progress of these changes the low form of inflammation that is present spreads to the integuments around the base of each pustule, which consequently become hard and thickened, and assume a dull violaceous or copper color. After several days' duration the crusts become detached, leaving a small, rather excavated ulcer, which, however, soon heals; the peculiar syphilitic stain of the surface remains for a considerable time; and when it fades away, a superficial white stain, somewhat resembling the pit of smallpox, but smaller, is witnessed on the site of the pustule; this is permanent. The pustules appear in successive crops, and thus, when the disease has existed for any time, they are witnessed on the surface in their various stages of development, intermingled with copper-colored stains or blotches, and the superficial pits marking the former site of those which have disappeared. When the eruption is situated on the trunk or the extremities, the individual pustules often acquire a considerable magnitude, equalling in size a small bean; they are, however, less prominent than on the face, and contain only a minute quantity of pus, surrounded by a hardened, copper-colored base, which does not undergo resolution usually for a considerable time, the induration remaining long after the disease has been apparently cured. Syphilitic acne may be developed at almost any period after the disappearance of the primary symptoms, but is generally of early occurrence; it is witnessed much more frequently in adults than in children, and its duration is usually prolonged for some months.

Syphilitic Impetigo (see Cazenave's Plate IV) is the least frequently met with of the three forms of the pustular syphilides; it may, as regards development, assume the characters of the non-specific impetigo figurata or sparsa; in either case a reddish, copper-colored, or violet-tinted patch appears on some part of the integuments, most usually of the face, on which the psudracious pustules are developed on the second or third day. These matu-

rate pretty quickly, and, giving way, become covered with a dark, greenish yellow crust or scab, of more firm consistence than in ordinary impetigo, and not presenting the same pellucid aspect; these crusts are tolerably adherent, in the majority of cases not falling off for from ten days to a fortnight, when superficial ulcerations are left, which in healing leave a cicatrix often permanent. An outbreak of syphilitic impetigo is generally preceded by some slight febrile disturbance, and the surface on which it is about to appear is the seat of a somewhat tingling and itchy sensation, which is alleviated on the coming out of the eruption. Its duration is seldom much prolonged, and it is witnessed in children rather more frequently than in adults.

Syphilitic Ecthyma (see Cazenave's Plate VI) is a very common form of secondary cutaneous affection, and almost invariably indicates an extreme degree of contamination of the system with the venereal poison. The phlyzacious pustules which characterize it are generally few in number, and are developed individually on scattered spots or stains, of a livid red color, and about the size of a sixpence, or somewhat larger; these appear distinctly separated from each other, chiefly on the extremities, but they also occur on the shoulders, the front of the chest, the face, and occasionally on the lower part of the abdomen and on the scrotum. On the second day after appearance of the stains, the epidermis in their entire extent is slightly raised by a sero-purulent effusion; the pustule thus formed acquires its full development very slowly, and becomes surrounded by a dull copper-colored border, which enlarges gradually until the entire acquires nearly the size of a half-crown. After some days the pustule bursts, and the contained matter, exuding, dries into a hard, dark-brown, or blackish-circular crust, which is very persistent; when it falls off, or is removed, a slightly excavated, indolent ulcer is left, which exhibits an extremely slow tendency to heal, the characteristic crust of the disease re-forming on it again and again; when eventually it does heal, a permanent, uneven cicatrix, of a dull-red color at first, but gradually becoming white, marks the part which had been affected. Little or no

constitutional derangement immediately attends the outbreak of syphilitic ecthyma, and the local symptoms which precede amount merely to slight itching, there being neither heat nor pain. It is one of the most frequent of the syphilitic eruptions in infants and young children, and is witnessed more commonly in old persons than in those in the prime of life.

SYPHILITIC PAPULÆ.

The SYPHILITIC PAPULÆ (see Cazenave's Plate VIII) are developed always in the form of the non-specific Lichen simplex or Lichen agrius; they constitute a very common secondary cutaneous eruption, and occur usually at an early period after the contamination of the system with the venereal poison, being often present on the skin while the primary symptoms still exist, or being developed in a few weeks after they have disappeared. In the former case the affection runs a much more acute course than in the latter.

Lichen syphiliticus is usually preceded by some fever and general heat of the skin; the eruption comes on very quickly, the entire cutaneous surface of the body, including the face and extremities, being sometimes covered with innumerable, minute papulæ, within twenty-four to forty-eight hours. They are placed so close together, often in patches or groups of a circular form, as to coalesce and present the appearance of large elevations, which require the aid of a lens to prove that they are made up of the minute papulæ which are so characteristic of this eruption. At other times they are scattered over the surface, perfectly distinct from each other, when, however, though less numerous, they are individually of large size; in either case they present a bright copper color. The papulæ generally disappear in a few weeks, with slight epidermic desquamation, as in the ordinary forms of the disease, but the surface remains spotted with dull coppery stains, which fade away very slowly; and not uncommonly a second outbreak of the eruption takes place shortly after the first has commenced to decline. In some persons, especially those of a full habit of body, and in

infants, syphilitic lichen assumes more of the characters of lichen agrius, the papulæ ulcerate at their apex, and a serous exudation takes place, which dries into thin brownish-yellow scales; much itching and well-marked constitutional disturbance attend this form of the eruption, which is also more persistent. When either variety becomes chronic, which, however, is rarely the case, psudracious pustules and copper-colored blotches are mingled with and complicate the papular eruption. Syphilitic lichen is witnessed both in infants soon after birth, and in adults, and is among the mildest of the syphilitic cutaneous affections. It is regarded by some writers as being occasionally a primary symptom, and as being not unfrequently a complication of blennorrhagia.

SYPHILITIC SQUAMÆ.

The SYPHILITIC SQUAMÆ (see Cazenave's Plate VII) constitute rather a frequent variety of secondary eruption, rarely making their appearance for a considerable time after the removal of the primary symptoms, and consequently indicating much saturation of the system with the venereal poison. The scaly affection of the skin is, in many cases, preceded by a roseolous rash, which exists for some time before the scales are developed on it. It may present the form of any of the non-specific varieties of the eruption, Psoriasis guttata, Psoriasis aggregata, and Psoriasis lepræformis; and, consequently, a syphilitic psoriasis and a syphilitic lepra are described by most writers as distinct affections.

Syphilitic psoriasis (Neligan's Plate XI, Fig 1) is not ushered in by any decided constitutional disturbance, nor is it attended with local irritation; but the usual general symptoms of secondary syphilis always accompany it, and serve much to aid the diagnosis. The scales, which are of a dull gray color, are developed in distinct spots or small patches, as in the ordinary form of the disease, but when the eruption is about to assume the aggregate or leproid character, they increase in extent pretty quickly. The disease usually comes out first on the extremities, to which, however, it is not confined, soon appearing on the

face, the scalp, and the entire trunk, especially affecting the chest and shoulders; the surface of the skin on which the squamous eruption is seated is of a dull violet or dark coppery-red color, and is elevated somewhat above the surrounding integuments. In the leproid form the edges of the circular patches are much raised, and the centres, which are always of a more dingy hue, depressed and free from scales, or with a few thin scattered scales on them. In the aggregated variety the outer border of the patches assumes more or less of an annular character, and, as Biett has remarked, it is separated in the majority of cases from the surrounding non-affected integument by a narrow white rim; the central portions are much more elevated than the edges, and the scales on them are thicker and of a dull gray color. Syphilitic psoriasis differs especially from the non-specific disease in not being more thickly developed around the joints than elsewhere on the extremities. In some cases, when the eruption has been of long persistence, it presents the tessellated pavement character described at page 235; but fissures do not form in the scales, nor is it attended with an ichorous discharge, or the symptoms of local irritation which characterize the inveterate variety of the ordinary disease. Syphilitic scaly eruptions are of extreme obstinacy, and their duration is invariably much prolonged; when they begin to disappear the desquamation—which, however, is never in such quantity as in the non-specific squamæ—gradually diminishes, the elevated surface becomes flatter, until it at length sinks to the level of the surrounding integument, but still retains its peculiar copper color, which disappears very slowly, years often elapsing before it fades away completely.

Syphilitic psoriasis is in some cases confined to a single region of the body, especially the palms of the hands, when it presents most of the phenomena characteristic of ordinary psoriasis palmaris, but the scales are thicker, of a duller hue, more persistent, and the portion of integument on which they are developed is more elevated, drier, and of a copper color; the general appearance of the palm of the hand when affected with the eruption is

such that Biett termed it *horny*, the affection constituting the *Syphilide squameuse corneé* of that dermatologist.

The squamous syphilides are very rarely seen in children, and are still more rarely developed for the first time in old persons, being an affection of individuals in the prime of life, liable to accompany either the so-called secondary or tertiary venereal symptoms.

SYPHILITIC HYPERTROPHIÆ.

In the SYPHILITIC HYPERTROPHIÆ a form of cutaneous affection occurs which has no parallel among the non-specific diseases of the skin; custom has so completely sanctioned the application of the term *tubercle* to its different varieties that it is almost hopeless now to think of changing this denomination, and for this reason, notwithstanding the great objections, so frequently referred to in the preceding pages, which exist to retaining this word in the nomenclature of cutaneous nosology, I shall not attempt to substitute another for it. Condylomata, which belong to this group of diseases of the skin, are, as already noticed, most frequently of syphilitic origin; but as, when of this nature, they fall altogether within the domain of general surgery, no further description of them than what has been given at page 308 is requisite here. For the same reason warts which result from a venereal source will not be noticed. The syphilitic tubercles will therefore alone engage attention in considering this group of cutaneous diseases as symptomatic of secondary syphilis.

Syphilitic tubercles (see Cazenave's Plates, IX, X, XI, and XII) are among the most frequent of the secondary symptoms of the venereal poison which affect the skin; they may be developed in a very short time after the disappearance of the primary disease, or their occurrence may be deferred for many months, or even years. The tubercles vary much in size and in their apparent phenomena, and thus constitute different varieties. First, they may occur in the form of large papulæ, differing from lichen chiefly as regards their size, being about equal to that of a small pea; they are rounded, hard, and

elevated above the level of the skin, appearing in small groups, most usually of a circular shape, with healthy skin intervening, and not unfrequently forming a centre to each patch. These groups are irregularly disseminated over the surface of the face, the neck, the trunk, and the extremities, especially the first; but are often symmetrical as regards the two sides of the body. The individual tubercles, which are of a violaceous or dull coppery hue, soon secrete a thin scale at their summit, beneath which, if rubbed off or torn with the nails, a slight watery exudation takes place; this dries into a thin, reddish-brown, persistent scab, which eventually falls off, leaving a characteristic syphilitic stain that for a long time marks the seat of the eruption.

Second, the tubercles are of greater magnitude, varying in size from that of a nut to that of an olive, of an ovoid shape—hard, distinctly elevated, and disseminated over the surface; they may occur on a single region of the body, especially affecting the face and neck, or may be generally distributed over the surface. In some parts, being more closely set together than in others, they sometimes coalesce and form a tolerably large tumor, uneven on the surface, but distinctly circular at the margin. The tubercles in this variety are of a deeper and duller shade of color than in that first described; neither desquamation nor serous exudation takes place from them; they remain stationary for a very long time, not unfrequently for years, and at length, being absorbed, often rather suddenly, the characteristic stain, slow to fade away, marks their site.

Third, a still larger tubercle than the last appears isolated, on some portion of the integument, most generally of the extremities, but sometimes of the body and face; it is rather soft to the touch, slightly painful, scarcely elevated above the surrounding skin, of a dull violaceous tint, with a bronze or copper-colored margin. It increases very slowly in size, exhibiting an appearance as if about to suppurate, and the margin assumes an uncircumscribed erythematous blush. At length the most prominent part ulcerates slightly, a thick, blackish, adherent crust forms on it, which is very gradually detached, usually not for

weeks, when the entire tubercle falls out, leaving an unhealthy, indolent ulcer, with excavated edges, painful and slow to heal. At first rarely more than three or four tubercles of this character are developed on the body, but they come out in successive crops, so as at length to amount to a considerable number. When the ulcer which they leave heals, a permanent depressed cicatrix results, which for a long time exhibits a rather bright copper-red stain. This variety of tubercle rarely appears for years after the primary symptoms, is generally met with in old persons, or those of a broken-down habit of body, and in individuals in whom there exists extreme syphilitic cachexia.

Fourth and last, several tubercles, about the size of a sixpence, but little elevated above the surface, and rather soft to the touch, are developed, distinct from each other, on some special region of the body, usually on the scrotum in males, and the pudendal region in females, on the face, particularly on the lips and nose, and around the arms; they are perfectly circular, and of a dull reddish tint. Small superficial ulcers soon form on them, appearing first at the outer margin; these gradually extend so as to cover the entire surface of the tubercle, retaining, however, their superficial character, and from them there exudes an extremely fetid, sanious liquid, which irritates and inflames the neighboring integument over which it may flow. Eventually the discharge ceases, copper-colored crusts form, and the parts heal without any marked cicatrix. By many modern writers, particularly of the French school, this form of syphilitic tubercle is regarded as constituting, in some cases, one of the varieties of primary symptoms.

SYPHILITIC MAUCLÆ.

Under the head of SYPHILITIC MACULÆ some of the forms of secondary roseola are not unfrequently described, but they should not be confounded with the peculiar pigmentary alterations of the cutaneous structure which in many cases accompany other secondary eruptions, and in some constitute the only affection of the skin present.

They resemble most, in their apparent phenomena, ephe-
lis hepatica, but differ from it in being developed in the
majority of cases on the legs, or in the region of the gen-
ital organs, occurring only in a few instances on the face
or the trunk of the body. They are also characterized
by their color, which is distinctly of a copper shade, at
times approaching to black, and in assuming from the
first a well-marked circular form, spreading from the cir-
cumference in ring like patches. These morbid altera-
tions of color do not appear on the cutaneous surface
usually until several months or even years have elapsed
after the cure of the primary symptoms; they are inva-
riably attended with well-marked syphilitic cachexia, and
are extremely obstinate to treatment, sometimes remain-
ing for life. Syphilitic maculæ occur at all ages, both in
persons in the prime of life and in old age, and are a not
unfrequent result of congenital syphilis.

Diagnosis of Syphilides.—Under this head little remains
to be said after the observations which have been made
in the commencement of the chapter on the general char-
acteristics of the secondary eruptions. The history of
the individual case, where it can be arrived at satisfac-
torily, which, however, in the majority of instances is
quite impossible, is the aid chiefly to be relied on; in
doubtful cases assistance is often gained by an examina-
tion of the glans in males, and the external organs of
generation in females, when the cicatrix or induration
resulting from a chancre, if it had previously existed, will
afford satisfactory evidence; inspection of the throat and
back of the pharynx also should never be omitted, the
characteristic venereal ulceration existing there usually
in connection with the eruption on the skin.

Prognosis in Syphilides.—The prognosis in secondary
cutaneous affections must be guided much by the degree
of syphilitic cachexia present, by the length of time
which they may have previously existed—for in propor-
tion to their duration is their obstinacy—by the severity
and extent of the concomitant circumstances in other
structures of the body, and by the nature of the eruption
itself: the latter point has been noticed in the description
of the individual forms.

Treatment of Syphilides.—As in all other affections which have their origin in the absorption of the syphilitic poison into the system, the secondary eruptions of the skin demand a specific mode of treatment, directed to the eradication of the constitutional taint on which they depend. Formerly it was believed that this could alone be effected by the action of mercurials, but the discovery of iodine and of its medicinal properties has wrought a complete revolution in the therapeutics of the consecutive symptoms of the venereal disease. This has in some respects, however, been attended with an evil result, that of inducing many practitioners to discard mercury altogether as a remedial agent in the treatment of the syphilides, and to trust to the employment of such simple measures as may be indicated by the local and general symptoms, independently of their specific character; or to rely solely on the administration of preparations of iodine to correct the constitutional contamination. But as in nearly every other disease to which man is subject, it should always be kept prominently in view that an exclusive system of treatment cannot be expected to be invariably successful, for the same affection often requires the use of even the most opposite remedies in different individuals, or in the same person under different circumstances.

The remedies to be employed in the treatment of the syphilides may be conveniently considered under three heads: the general, the specific, and the topical.

The *general* treatment consists in the employment of means, calculated to meet the indications dependent on the special symptoms which may arise or be present in individual cases. Thus, when the outbreak of an eruption is attended with distinctly febrile symptoms or well-marked local inflammatory action, the employment of antiphlogistics is demanded before the administration of specifics can be commenced. Under such circumstances, in young plethoric persons, Dr. Neligan was of opinion that general bleeding will be resorted to with advantage, and that topical abstraction of blood by means of leeches is almost invariably necessary. Active saline purgatives should be given also, and in no case should they be

omitted; with very few exceptions their effects are productive of the most beneficial results in the early stages of every syphilitic eruption: the only instances in which they occasionally prove injurious are, when the syphilitic cachexia is extreme in very old persons or individuals of a broken-down habit of body. They seem to act chiefly by determining to the intestinal mucous tract, and thereby diminishing excessive cutaneous action, the quantity of the eruption, and consequently the local inflammation, being thus checked; but they also lessen the general febrile symptoms. The neutral purgative salts are best adapted to fulfil these intentions, and their administration will be advantageously preceded by a full dose of calomel or blue pill.

On the other hand, should the vital powers be low, and the depression of the system very manifest, as is very frequently the case, the vegetable tonics must be given; and if there are deep-seated pains present, especially the nocturnal pains so characteristic of the disease, opiates in full doses should be prescribed in combination, or if the suffering is extreme their use may precede the employment of the tonics. No preparation so well relieves the deep-seated pains which so frequently accompany secondary symptoms, whether of the skin or not, as crude opium: it may be given in the dose of a grain made into a pill, three or four times, or even oftener, in the twenty-four hours, according to circumstances. Of the vegetable tonics, those which determine to the skin, such as the elm bark, are especially useful; or cinchona bark or quina may be combined with the tonic or stimulating vegetable diaphoretics—dulcamara, mezereon, sarsaparilla, guaiacum, &c.: the mineral tonics, especially the stronger acids, and iron and its preparations, are also often highly serviceable in the Syphilides, when the employment of this class of remedies is indicated. The former were largely given by Bielt in the syphilitic exanthemoid and papular secondary eruptions, much reliance being placed by him on the nitric and sulphuric acids: the latter are especially indicated when much anæmia is present, and they are often usefully prescribed in combination with iodine, as in the chemical compound

of the iodide of iron, or of the iodide of iron and quina, When a specific eruption occurs in an individual of a scrofulous diathesis, or with a strumous tendency, cod-liver oil will be administered with decided benefit; and should the debility be extreme, preparations of iron are usefully given at the same time.

The *specific* treatment of the syphilides consists in the employment of the preparations of mercury, of gold, or of silver, and of iodine alone or in combination with any of them. Dr. Neligan was of opinion that mercurials are unquestionably the remedies on which most reliance is to be placed, but that the amount of benefit to be derived from their use depends much on the manner in which they are administered, and the preparation that is employed. They should not be given on the first appearance of the eruption, the more especially if its outbreak is connected with general febrile symptoms; these must be previously removed by the means already referred to: and in all cases the state of the digestive organs requires special attention before their employment is commenced. The several forms of the secondary eruptions serve as indications as to what preparation of mercury is best suited, but it may be laid down as a general rule *that those which have the property of producing salivation quickly or freely, such as blue-pill, calomel, and the allied compounds, are rarely adapted for these consequences of the venereal disease.*

For the scaly and tubercular syphilides, corrosive sublimate and the red iodide usually prove the best preparations of the metal; either may be given in pill with opium, in doses of from 1-12th to 1-8th of a grain, three times daily, the quantity of opium being proportioned to the degree of the characteristic venereal pains which may attend; or the former may be preferably prescribed in some vegetable decoction, such as that of dulcamara, of elm-bark, of mezereon, of sarsaparilla, &c., as in the following formula:—

R. Corrosivi Sublimati,	granum.
Infusi Dulcamaræ,	uncias quatuor.
Decocti Mezerei,	uncias duodecim.
Infusi Sassafras, ¹	uncias octo. Misce.
Sumat uncias duas fluidas ter indies.	

When these or any other of the syphilitic eruptions become chronic, or return frequently after they have been apparently removed, it will be necessary to have recourse to the administration of arsenic, in combination with the mercury and iodine, and under such circumstances Dr. Neligan was of opinion that Donovan's solution—the liquor arsenici et hydrargyri hydriodatis of the last *Dublin Pharmacopœia*—proves singularly beneficial. It is for the chronic forms of secondary diseases of the skin that this combination is especially adapted, and in these cases its therapeutical efficacy is undoubted; indeed (he adds), in my hands, it has very rarely failed to effect a permanent cure, but it must be given in moderate doses—from ten to twenty minims three times daily—the quantity increased very gradually, and its use continued for a long time, even after the disappearance of the eruption. It may be administered in some of the vegetable tonic or diaphoretic decoctions, according to individual circumstances.—[? Gradually increased doses.—Ed.]

For the pustular and papular syphilides the green iodide of mercury of the last *Dublin*—the iodide of the last *London*—*Pharmacopœia*, has proved, in my experience, the best preparation of the metal. It may be given in pill, combined with opium, should circumstances indicate the use of that drug, in the dose of from half a grain to three grains, three times daily, but its effects must be carefully watched, as it is in some persons apt to produce salivation, even in small doses; and in the treatment of any form of syphilitic eruption it is most important to administer as little mercury as possible, and to introduce it very gradually into the system; the precise quantity requisite can only be judged by watching the effect produced in each individual case, but the

¹ See Macnamara's (Sixth) Edition of Neligan's *Medicines*, §c., p. 248.

mildest action on the mouth is always an indication that for the time enough has been given. An excellent way of prescribing this preparation for adults is to substitute it for the calomel in Plummer's pill, and the vegetable decoctions before referred to may be given at the same time.

The syphilitic exanthemata do not require the employment of specific remedies in their acute stages; but should they exhibit a tendency to become chronic, the green iodide of mercury is the preparation best adapted for them. The occurrence of maculæ as a secondary symptom indicates the necessity for a prolonged administration of a mercurial, and, therefore, either the chloride¹ or the red iodide should be used.

When any of the forms of syphilitic eruption appear on infants at the breast, it is desirable, when practicable, to introduce the specific medicine into the system of the child by means of the nurse's milk; but as in the majority of cases it is essential to change the nurse, and is, consequently, often requisite to wean the infant, the hydrargyrum cum magnesiâ, or hydrargyrum cum cretâ, may be given in doses of from one two grains daily, according to the age; and with each dose from a twelfth to an eighth of a grain of the green iodide of mercury may be combined, when the eruption is extensive.

The preparations of gold and of silver were at one time proposed by the French school as substitutes for those of mercury, but they were found not to possess at all the same efficacy, and they have, consequently, fallen into almost complete disuse for the treatment of secondary symptoms. The former were supposed to be especially adapted for persons of a scrofulous diathesis, with whom mercurials very generally disagree; and their effects are highly spoken of by Legrand and Chrestien, but they have not, that I am aware, been employed in this country.

Iodine or its preparations should not be trusted to alone with the intention of producing a specific action in

¹ Hg Cl, Hydrargyrum Corrosivum Sublimatum.—*Brit. Pharmacopœia*.

the treatment of the secondary eruptions; from what has been already said it is evident that their combination with mercurials is of especial service, but, unless thus prescribed, they usually disappoint. In scrofulous habits their administration should never be omitted; still, a mercurial must be given with them, and the more decided the evidences of scrofula are in any individual case, so much the more must the proportion of the iodine preparations predominate in the treatment. The administration of iodide of potassium is attended with the best results as soon as the preparation of mercury which may have been given evidences its action on the system by the mouth being affected, and it is also most valuable when given to nurses, with the view of treating a venereal eruption in an infant at the breast; in the latter case, it often suffices to cure the disease, whether the nurse is at the same time affected with secondary venereal symptoms or not.

The employment of *topical* remedies in the treatment of the syphilides is of much less importance than in the non-specific eruptions; little more being requisite, in the majority of cases, than the use of the tepid bath, every second or third day, to allay any local irritation or inflammatory action which may arise, and also to restore the healthy functions of the skin.¹ When ulceration occurs in the progress of any of the secondary eruptions the black-wash is the best application which can be used, if it takes place on the scalp, the trunk, or the extremities; but on the face, an ointment containing a drachm of calomel to an ounce of simple cerate is more easily applied and is more efficacious. In infants, the local symptoms are usually more severe than in adults, but they are easily calmed by the employment of a dusting powder, containing twenty grains of the carbonate of

¹ Lorsque les syphilides ont disparu, les eaux sulfureuses sont encore utiles pour consolider la guérison; en rétablissant les forces et l'harmonie des principales fonctions, elles peuvent prévenir des récidives. Pour obtenir ce dernier résultat, l'*hydrothérapie* peut également être avantageuse; elle est indiquée principalement dans les cas d'anémie avec accidents nerveux consécutifs.—M. Hardy—*Leçons sur la Scrofule et les Scrofulides et sur la Syphilis et les Syphilides*. Paris: 1864. P. 211.

lead, half a drachm of the oxide of zinc, and an ounce of starch, reduced together to a state of the minutest division; a tepid bath of fresh water, containing from two to four ounces of size, should be at the same time employed every night, or every second night, according to circumstances. The dispersion of the stains in syphilitic maculæ is much hastened by inunction with mercurial ointment while the constitutional treatment is being followed out.

Dr. Hillier notices "a very good way of administering mercury without disturbing the digestive organs." This is effected by means of a vapor bath, in which from ten to twenty grains of calomel are volatilized and brought in contact with the skin, together with steam. In Holmes's *Surgery*, Vol. I, p. 422, Mr. Henry Lee describes a simple form of apparatus. It consists of a tin case containing a spirit lamp; immediately over the wick of which is a small circular tin plate on which the calomel is placed; around this is a circular furrow, in which hot water is placed. This is placed on the ground; the patient, closely wrapped in a cloak from the neck down, sits over it in a cane-bottomed chair. Dr. Hillier very strongly recommends this; and in a case recently under the observation of the Editor its judicious use effected an apparent cure.

The practice of *Syphilization*, or inoculating with the syphilitic virus, has, of late years, been advocated by Professor Boëck, of Christiania, and others. As it is connected with the treatment of secondary syphilis, and so is beyond the scope of this work, the Editor can only refer to copious analytical reviews and papers on the subject in the *Dublin Quarterly Journal* for Feb. and Nov. 1857, and May, 1861; also, Professor Boëck's papers, in the *Lancet* for Aug. 1865.

In all cases of secondary syphilitic eruptions, as soon as the first inflammatory symptoms, if any occur, are subdued, the diet should be nutritious, and wine and other stimulants should be allowed; if the syphilitic cachexia be extreme, and much debility present, the chief points to be attended to are, to support the strength, and at the same time to allay both general and local

irritability. Change of air, especially to a dry and warm climate, is an aid to the treatment of the utmost importance in chronic and obstinate cases.

It may not be out of place to mention here "the Zittmann treatment," advocated by some Continental authors, and by Mr. Wilson, who gives it "with the strongest recommendation in its favor." Mr. Wilson concisely calls it "a triple compound of starving, purging, and sweating." The plan, as follows, is given in the words of Dr. Fox, who, however, does *not* recommend it:—"First day, a purge (calomel and jalap), and three meals of broth; up to the fifth or sixth day four pints of the Zittmann decoction are taken daily; of these four, two pints are made of the strong and two of the weak decoction (*vide* formulary following), with each day two ounces of meat and two of bread; on the sixth day an active purge, with broth as before; the seventh till tenth, repeat the drinks, and meat and bread; this continues till the fourteenth day or so, and then the patient is kept on low diet, allowed to get up, but still continues to take a small quantity of the decoction. If convalescence is tardy or insufficient, the same treatment must be recommended."—Fox, *op. cit.*, p. 289. The formula Mr. Wilson gives thus in his latest work—*Student's Book*, &c., p. 374:—

DECOCTUM ZITTMANNI FORTIUS.

R. Radicis Sarsæ concisæ, . . . ℥xij.
 Aquæ fontanæ, . . . libris (libras) lxxij.

Digest for twenty-four hours; then add, tied up in a piece of linen:—

Sacchari Albi,
 Aluminis, aa ʒvj.
 Calomelanos, ʒiv.
 Hydrargyri bisulphureti rubri (Cinnabar) . ʒj.

Simmer down to twelve quarts; towards the close of the simmering add:—

Seminum Anisi, contus.,
 Seminum Fœniculi, contus., aa ʒss.
 Foliorum Sennæ, ʒiij.
 Radicis Glycyrrhizæ, concisæ, ʒiss.

Press and strain, and, after standing until cool, decant the clear liquid and bottle twelve quarts.

DECOCTUM MITIUS.

To the dregs of the strong decoction add :—

Radis Sarsæ concisæ,	. . . . .	℥vj.
Aquæ Fontanæ libris (libras),	. . . . .	lxxij.

Simmer down to twelve quarts, and towards the close of the simmering add :—

Corticis fructûs Citri, contusi,	
Cardamomum Minorum, contus.,	
Radicis Glycyrrhizæ, concisæ,	. . . . . āā ℥iij.

Squeeze and strain, and, after standing until cool, decant the clear liquid, and bottle twelve quarts.

One bottle of the stronger decoction is to be taken *warm* before twelve o'clock in the day; and one bottle of the weak decoction *cold* between twelve o'clock and bedtime. Dr. Fox justly objects to this plan of treatment that it is inapplicable in a general way, because of the very great inconvenience to the *patient*, for such he literally is when undergoing all this physic. The system itself is nothing more than a perpetuation of the old plan, not yet disused by some, of pouring what is popularly termed "an apothecary's shop" down a patient's throat.

CHAPTER XIII.

DISEASES OF THE APPENDAGES OF THE SKIN.

IN this chapter I shall describe affections of the hair and of the nails. They constitute a class of morbid changes, concerning which the regular medical practitioner is but rarely consulted, and therefore a short notice of them must here suffice; yet the former, especially, are not uncommonly a cause of as much anxiety to those who suffer from them as a really grave cutaneous disease.

In Plenck's Classification of 1776, *Morbi unguium* and *Morbi pilorum* were the last two orders. They were rejected by Willan, but there is no doubt that they might have been retained with advantage. Dr. Neligan's supplementary group, "Diseases of the Appendages of the Skin," it is obvious, is nothing more than a return to the principle, and almost to the letter, of Plenck's nosology.

DISEASES OF THE HAIR.

THE DISEASES OF THE HAIR consist in alterations of its natural color or characters, and in its partial or total loss. Some few cases have been recorded in which the hair has undergone a sudden change of color from a light to a dark hue, or the reverse, without any apparent cause, or after some acute disease; and not unfrequently when it is reproduced after it has been removed for some febrile or other affection, it grows of a much darker color than it had been originally; this is usually the case when it has been kept cut close for any length of time in the treatment of any of the eruptions of the scalp.

Loss of color in the hair—*Canities* (grayness)—is one of the natural results of old age, but it often occurs at a

comparatively early period of life, either from constitutional causes or from extreme mental anxiety. The effect of the latter is often well marked, and some cases have been witnessed in which the hair has become perfectly white in the space of a few hours, while an individual was laboring under some violent emotion of the mind; these, which have often furnished a theme for the poet and the popular writer, demand no other notice here than that of a mere reference.¹ The most important of the constitutional causes of canities is hereditary predisposition, and examples of premature grayness of the hair descending through several generations in certain families are very numerous. Blanching of the hair is sometimes associated with debility of the vital powers, but that it is very rarely so is evident from the fact of its being so seldom witnessed in those who die young of consumptive or other lingering diseases.

While, as a general rule, canities is one of the accompaniments of old age, yet the cases of very old persons are numerous in which no sign of it can be detected. The editor believes this will be found true occasionally with insane persons, who have lived for many years in a state of mental aberration, and have died at an advanced age. In a recent case which he had under observation for several years, an old lady who had been more or less insane for nearly fifty years, died at the age of ninety-three with as beautiful tresses of brown hair as any young woman could have. She had not a single gray hair. A full account of this remarkable case was read by the editor before the Medical Society of the College of Physicians, in 1863, and was subsequently published in the *Dublin Quarterly Journal* for February, 1864, under the title of "A Short Biographical Sketch of a Remarkable Case of Insanity."

Canities of the beard is in the present day chiefly noticed in persons who have abolished the irrational and unmanly use of the razor. In such cases it very frequently hap-

¹ The well-known case of Queen Marie Antoinette, of France, whose beautiful hair turned to a silvery gray color in one night, is a case in point.

pens that that portion of the beard which had been previously shaved at first appears gray when allowed to grow. This canities, however, in many cases disappears as soon as the newly-grown beard has lost its coarse appearance—a process which sometimes takes so long as two or three years. The reader will find more full information respecting the beard in a paper by the editor, entitled, “The Hygienic Aspects of Pogonotrophy,” published in the *Dublin Quarterly Journal* for February, 1864.

Treatment, whether topical or general, has, in my opinion, no effect over any of the forms of canities except that last described, and in it the indications are manifestly to restore the system to a state of robust health, if practicable, by the use of such remedies as may be appropriated for the individual case. But numerous local applications and other means have been and still are recommended, with the view of preventing the hair from turning gray; should it be dry and crisp, and the surface of the scalp appears bloodless, any gently stimulating pomade may be used; cutting the hair short, or removing it altogether by shaving the scalp occasionally, proves useful. The preparations which are used for dyeing the hair are very numerous, and formulæ for them are given in all druggists’ or perfumers’ receipt books.

The occurrence of white hair in patches on the scalp has been already described—See Vitis.

The only alteration in the character of the hair which can be strictly regarded as a disease is that peculiar felting and matting of it together which constitutes the singular affection that has been named *Plica Polonica*. This disease, which is “der weischelzopf” of the Germans, is an affection of the hair endemic in Poland and the surrounding countries, where it is said to be produced by the bad living and unclean habits of the inhabitants. After inflammation of the scalp, which becomes swollen, red, and sore to the touch, a viscid exudation takes place from it, matting the hairs together, so that, as Dr. Fox observed—“Lice, pus, blood, and fungous elements are found mixed together in the plicose felting.” This disease affects the scalp, pubes, nails, and sometimes the

chin and axillæ; and after some months the diseased mass is said to be "pushed off." Dr. Fox, from whose description the above is for the most part condensed, considers it to be of the same nature as the Pellagra, or modified forms of elephantiasis, viz., a result of action of deteriorating influences upon the general nutrition at large. He also observes that a fungus—the trichophyton sporuloides of Günsburg—has been found, and is supposed to be the real cause of the disease, the soil favoring the development of a parasitic fungus. On the other hand, Gustav Simon could not find any vegetation in the hairs themselves, and he regards the disease as consisting chiefly of an abnormal secretion from the surface of the skin, not especially implicating the hair follicles. Fuchs believed the sticky material to come from the hair follicles. Hillier thinks that the real nature of the disease is not fully proved, and Hebra suggests that it is not a distinct disease, but eczema or some other skin affection much neglected. Dr. Neligan never saw a case of it, nor has the Editor had that advantage.

Loss of hair or *baldness*, termed "*Alopecia*" by the ancient writers on medicine,¹ would appear to have been of much more frequent occurrence and to have attracted more attention formerly than at present; it may be either partial or general on the hairy scalp, or on the other parts of the body which are naturally covered with hair. In the former case, it was termed *Porriga decalvans* by Willan, but then it is manifestly due to the occurrence of Vitiligo on these regions of the skin, as before described. General baldness is in many persons the accompaniment of old age, being usually associated with gray hairs, nor can it be regarded as a disease except when it occurs in comparatively early life; some few cases have been recorded as being congenital, in which, however, it was due to non-development of the hair follicles. Permanent baldness, as has been remarked in the preceding pages, is also at times a result of the eruptive diseases of the scalp, especially of Porriga, and is then a consequence

¹ From ἀλώπηξ, a fox; because foxes suffering from the *mange* are more or less bald.

of the inflammatory action which may exist extending to the bulbs; after most diseases of the scalp, however, although the hair falls out, it is reproduced. Loss of hair, partial or general, is also a not unfrequent sequence of fevers and acute inflammatory affections, and of syphilis; in the former case it generally grows again, but in the latter the baldness is usually permanent. Loss of hair from natural causes at an early age is, like the premature change of its color to gray, hereditary in the majority of instances, is also caused by violent emotions of the mind, or prolonged mental anxiety, and is connected pathologically, in some individuals, with general debility, or diminished vital action.

It has been frequently remarked in this country that Alopecia is common among young men of the middle and upper classes in England, while in Ireland it is comparatively rare. This has been sometimes attributed to the custom of wearing hats indoors, particularly in merchants' offices, in clubs, and places of public resort; but whatever may be the true cause, the fact of the general prevalence of Alopecia among young men in England is notorious.

Alopecia sometimes occurs as a consequence of mental anxiety. In another work¹ the Editor has noticed a curious case which happened in the South of Ireland about the middle of the seventeenth century, and is recorded by Dr. Stearne, founder of the College of Physicians, as having come under his own observation. A young man was successfully operated on for a stone in the bladder. The stone was in one piece, and weighed eleven ounces; yet after six days, during which the urine flowed through the wound, the natural function of the urethra was restored, and the parts healed without suture or plasters. The young man's father, who was aged sixty-three and in robust health, was present at the operation, and was so violently affected by fear of his son's death, that within twenty-four hours every hair on his head fell off. Afterwards he complained of extreme heat in his head, was

¹ *Memoir of John Stearne, M. & J. U. D., with a Review of his Writings.* Dublin: 1865.

deprived of vision for two hours, and lo! his hair began to bud forth anew.¹

Congenital and senile baldness are incurable, as is also that form of it which is hereditary. In other cases, repeated shaving the head, or keeping any hair that may remain constantly cut close, and the application of stimulating spirituous washes, such as either of the following, sometimes prove useful :—

- | | | |
|--------|---|-----------------|
| R. | Spiritus Vini Rectificati, | uncias sex. |
| | Ammoniae Hydrochloratis, | grana triginta. |
| | Olei Rosmarini, | semi-drachmam. |
| | Infusi Armoraciae compositi, ² | uncias sex. |
| Misce. | Fiat lotio. | |
| R. | Tincturae Cantharidis, | drachmas duas. |
| | Aquae Sambuci, | uncias undecim. |
| | Spiritus Rosmarini, | drachmas sex. |
| Misce. | Fiat lotio. | |

The turpentine pomade, as ordered at page 329, not unfrequently proves of service also, and each time, previously to its application, the scalp should be washed with an alkaline lotion, containing a drachm of carbonate of potash to eleven ounces of water, and one ounce of rectified spirit or of rum. The following pomade, as recommended by Dr. Copland, I have frequently used with excellent effect :—

- | | | |
|--|------------------------------|------------------|
| R. | Adipis præparati, | uncias duas. |
| | Ceræ Albæ, | semi-unciam. |
| Lento igne simul liquefac, tunc ab igne remove et ubi primum lentescant, | | |
| | Balsami Peruviana, | drachmas duas. |
| | Olei Lavandulæ, | minima duodecim. |
| Adjice, et assiduè move donec refrigerint. | | |

In cases of what he calls *Symptomatic alopecia*, M. Hardy recommends the application of the following preparation : Ox marrow, one ounce ; castor oil, half an

¹ " Illius pater annum agens sexagesimum tertium, robustus tamen, huic periculosæ operationi interfuit ; metu vehementiori mortis filii sui, capitis pili universi intra horas viginti quatuor defluxere. Dein de ingenti capitis ardore conquestus est, et ad binas horas visu orbatus fuit, ò crinis jam repullulat."—*Stearne Johannes, Animi Medela*, p. 450, Dubl. 1658.

² *Pharmacop.* Lond.

ounce; gallic acid, twenty grains; tincture of rosemary, half a drachm.—See *Journ. de Méd. et Chir. Prat.*, Sept. 1864; and Ranking's *Abstract*, Vol. XL, page 123.

Mr. Wilson (*Student's Book of Cutaneous Medicine*, p. 432) notices a variety of alopecia which he terms *Area*, or *Alopecia areata*. This consists in total loss of hair in a circular patch, and sometimes in the form of an elongated band which, from its resemblance to the trail of a serpent (ὄφις), has been called *ophiasis*. The sudden discovery of one or more bald spots is the first intimation of this disease, which Mr. Wilson believes to be essentially a *neurosis*. It is not limited to the scalp, but also occurs in the beard, whiskers, and eyebrows, as well as on the body and limbs. The Editor has known it to be cured by repeated shaving, once weekly for months. There is a very good illustration of it in the Sydenham Society's edition of Hebra's Plates. Dr. Fox believes it to be parasitic, the fungus being the microsporon Andonini.

In all forms of alopecia the scalp should be kept warm, and consequently wearing a wig is often of service when the hair first begins to fall off.

See Dr. Ross *On Ringworm, Scall Head, Baldness, &c.*, quoted in Chap. XI.

DISEASES OF THE NAILS.

Most of the DISEASES OF THE NAILS are of such a nature as to demand surgical interference, and are consequently described in the works of surgical writers. Perhaps the most important of them all is that in which the nail of some of the toes grows into the surrounding fleshy integuments, and by the irritation thus occasioned gives rise to the formation of a foul, unhealthy ulcer. It would not be in accordance with the plan of this work to say anything here of the surgical treatment requisite to cure this most obstinate and painful affection; but I cannot avoid remarking on the importance of preventing the *ingrowing*, as it is termed, of the nails, by always cutting them straight across, parallel with the extremity of the toe, as when they are cut at the edges the pressure

of the boot or shoe not uncommonly gives rise to this disease. The nails both of the hands and feet are also subject to inflammation attacking their matrix, to hypertrophy and to atrophy, and they occasionally fall off completely, and are not reproduced. This last affection, which has been termed by the French writers *Alopecia unguale*, is sometimes congenital, children being born without nails; but such cases are extremely rare. When the nails become hypertrophied, the application to them of caustic potash, and the daily use of a strong lotion of carbonate of potash is often useful; the nitrate of silver is the best application when the nails, being brittle, split and break readily; and it is also productive of much service should a foul discharge continue from beneath the nail, as a consequence of previous inflammation of the matrix. As has been remarked already, the nails at times become engaged in some of the eruptive diseases of the skin, more especially psoriasis and eczema, when, however, they require no further treatment than that applicable to the existing affection.

Onychomycosis.—From ὄνυξ and μύκωσις, and that from μύκης, a fungus.

This term is applied to cases in which a parasitic disease of the nails is believed to exist. As already remarked, the instances are not rare in which diseased nails accompanied cutaneous affections, but a few cases have been noted where what was believed to be parasitic disease of the nails existed alone. Some of these, as noted by Meissner and Virchow, will be found in Küchenmeister's *Manual of Parasites* (Vol. II, p. 228), already referred to; and, more recently, two cases are detailed in an interesting paper in the November number of the *Dublin Quart. Journ.* for 1865, by Mr. John M. Purser, M. B., of this city.

In one of these cases the patient had, three years before, suffered from a skin affection of uncertain nature, which was confined to the dorsal surface of the left thumb, on which the skin reddened, and small blisters formed. The nail became thickened and discolored, and, after a considerable time, small collections of matter formed under and near the root of the nail, and discharged by its edge, or

became absorbed. The nail now presented the following appearance: "It was of a dirty brownish-yellow color, streaked with lines of a darker brown, greatly thickened, and at its free extremity separated from its bed by a mass of soft nail substance which could be easily picked out. The entire nail was somewhat roof-shaped, a prominent ridge running along its centre, from which it sloped down on each side towards its attached edge. Its sides were concave from above downwards; its surface was very rough, and marked by deep transverse grooves; the longitudinal striæ also were strongly marked; it was very hard, more brittle than natural, and inclined to split longitudinally, and in flakes. Near the root was a small portion of nail of a pink color, but rough and thickened; there was no trace of lunula; a small abscess existed at the root, and the skin in the neighborhood was slightly red and swollen."—Purser, *Op. cit.*, p. 353.

Microscopic examination.—Mr. Purser removed a portion of the nail and some of the loose substance lying under it, and found that the superficial horny part presented nothing remarkable in its appearance, save its thickness. "Some of the cells, however, were opaque and granular, and others were of a brownish color; but in the deeper layers of the nail the elements of a fungous growth were found in abundance. These were: I. *Spores*, circular or oval, either scattered, collected in groups, or forming moniliform chains. In some of them a central nucleus-like spot was apparent. II. *Tabular filaments*, tortuous and branching; these were for the most part jointed at intervals, and many of them contained small shining bodies. III. *Larger, less branched filaments*, of a brownish color, and containing spores at regular and close intervals; the walls of these filaments were sometimes indistinct, the spores being apparently attached to each other, end to end, forming a moniliform chain, which was often seen to terminate in a dense cluster of minute spores, or in a mass of granular matter. IV. *Granular matter*. All these were mixed up with tolerably healthy nail plates, and were rendered very clear by caustic soda or potash." Space would not admit of a detailed account of Mr. Purser's second case, in which the microscopic

appearances differed slightly from those seen in the first. The microscopical appearances in both cases, and the appearances of the nail in Case I, are well figured in good woodcuts accompanying his excellent descriptions and commentary, which convey the impression that in both cases the fungous growth was secondary to disease of a non-specific kind.

Treatment.—In cases where the disease appears to be connected with cutaneous or specific disease—*e. g.*, syphilis—the treatment resolves itself mainly into attention to the primary affection; where it is non-specific, blisters have been tried, but with small success. If its parasitic nature be admitted in a given case, as it clearly must be in Mr. Purser's cases—of course the parasite should be destroyed as soon as possible, and the recurrence of its growth prevented by raising the tone of the system and improving the general health. In the first of Mr. Purser's cases he cut and scraped away some of the thickness of the nail, and then applied a weak solution of corrosive sublimate as a parasiticide.

CHAPTER XIV.

THERAPEUTICS OF DISEASES OF THE SKIN.

IN describing the individual eruptions of the skin I have spoken of the treatment adapted for each, yet there are some general points in therapeutics especially applicable to this class of affections which require a separate notice, and to their consideration I propose to devote this chapter: it will, therefore, consist in a review of the remedies most generally used in cutaneous diseases, and the manner in which they should be employed; a few formulæ which may prove suggestive in prescribing will also be appended. The remedial measures ordinarily required may, for convenience of description, be considered in two divisions—the *topical* and the *constitutional*; it is true that some of them, baths for example, produce their effects by acting both locally and on the system generally, but as their mode of application is external they will be considered in the former division.

Several objects are in general expected to be fulfilled by the employment of *topical* medication in the treatment of cutaneous eruptions. It may be used with the view simply of cleansing the skin from the scales or crusts which form on the surface, so as to permit the direct application of remedies to the diseased parts: for this purpose cataplasms, baths, alkaline washes, and soaps are usually had recourse to. It may be employed with the intention of protecting the affected portions of the integument, from the action of the air; or a directly therapeutic effect may be expected from its application. Some topical remedies fulfil only one of these indications, while the benefit derived from the use of others depends on their mode of operation combining the three.

The treatment of diseases of the skin *by the total exclu-*

sion of air has, of late years, more especially since the discovery of collodion, been much employed and highly recommended by some practitioners, while in the hands of others it has completely failed. The practice is chiefly applicable to local eruptions, and to those which are not attended with much discharge. Its employment in erysipelas and in smallpox has been referred to when speaking of the treatment of those diseases, but it has not as yet been sufficiently tested by experience to enable a satisfactory conclusion as to its therapeutical efficacy to be arrived at. So far as regards the application of collodion to form an impermeable covering, it has been productive rather of injury than of benefit in any cutaneous eruptions in which I have used it; this appeared to me to depend chiefly on the uneven compression and contraction of the integument which it occasioned, causing much local irritation, and sometimes even a degree of inflammation. Such effects being due principally to the rapidity of evaporation of the ether in which the gun-cotton is dissolved, these resulting injurious consequences will, to a considerable extent, be prevented by adopting the plan of the late Dr. Graves, who, in the *Dublin Quarterly Journal of Medical Science* for August, 1852, recommended the employment of a solution of gutta percha in chloroform for this purpose. Moreover, the gutta percha forms a less brittle, firmer, and thicker, though still transparent, covering to the skin, and exerts an even and more complete compression on the surface; the latter effect also being regarded by Dr. Graves as of importance with reference to its beneficial action. In his paper on the use of this substance, above referred to, Dr. Graves illustrates its therapeutical efficacy by the narration of some cases in which it proved remarkably successful; but the experience of other practitioners is more in favor of the use of a solution of India-rubber in chloroform.

The advantage to be derived from the application of *bandages* to either the upper or lower extremities, when they are the seat of cutaneous eruptions, is too often overlooked; they fulfil to a certain extent the indication of excluding the action of the air, but they also prove beneficial by exerting an equable amount of compression on

the overloaded and congested vessels, as has been already noticed when speaking of erysipelas; and they afford, in addition, a useful means of applying medicated lotions, as referred to in describing the treatment of eczema.

The various remedies which are employed topically for the treatment of diseases of the skin may be applied to the surface in the form of baths, cataplasms, caustics, lotions, ointments, powders, and soaps. These will now be considered in succession.

Baths, both simple and medicated, have at all times been very extensively used as remedial agents in cutaneous eruptions, and have by many been supposed to be sufficient for their cure, without the administration of any internal remedies. To the reader of the foregoing pages it must be evident that I place comparatively little reliance on their efficacy, and that I recommend a resort to their employment with the intention of acting, so to say, medically on the disease in but few cases: yet it cannot be denied that abundant testimony exists to prove that persons affected for years with chronic eruptions, more particularly those of a scaly character, have been cured by the prolonged use of medicated vapor, steam, or water baths. But they are not at present employed to at all the same extent that they were formerly, and modern writers do not recommend baths in the same laudatory terms as those who preceded them—a proof that their efficacy was, to say the least, somewhat overrated. As a cleansing agent, and to promote the discharge of the healthy functions of the skin, and a return to its normal state, the fresh water tepid and warm baths are of especial service in many cutaneous eruptions, chiefly those in which the surface is dry and hard, as in the exanthemata, the scaly diseases, and ichthyosis; and when these affections are local, they are often advantageously employed in the form of douche; but they seldom agree with those cases which are attended with a discharge, whether it be serous or purulent. In addition to their cleansing effects they also often prove useful, as antiphlogistics, in allaying local irritation and inflammation.

Vapor baths, being slightly stimulant, are not indicated until the chronic stages of cutaneous diseases are fully

established, when, in consequence of their possessing this property, they are frequently used with advantage. A *vapor bath* may be advantageously given on the plan described by Mr. Grantham in the *Brit. Med. Journ.*, 20th August, 1864. In this bath the patient sits on a cane-bottomed chair, with his feet in a foot-bath, while he is covered from the neck downwards with a blanket which envelops the chair also. He is, of course, quite nude, save this covering. A quantity of boiling water in an open vessel is placed under the seat of the chair, and in the pan is placed a red-hot brick. A *sulphur bath* may be given in this way by boiling six ounces of sulphur in the water; or an *ammonia bath* by introducing two ounces of the strong liquor ammoniæ before the introduction of the red-hot brick.

The *portable Oriental vapor bath* of Messrs. Benham and Froud, of Chandos street, London, is noticed by Dr. Fox, as a *modified* form of the above. It contains a complete set of apparatus for all kinds of fumigation, and it costs about thirty shillings.

Salt water bathing, in my experience, proves injurious in most diseases of the skin; for although it often appears at first to produce a beneficial action, the eruption usually returns afterwards with greater obstinacy, and is much more rebellious to treatment; but usually, and always when the affection is of an inflammatory tendency, it aggravates the disease: the only cases in which I have seen it almost invariably serviceable are when maculæ or stains of the integument become persistent after the removal of any of the syphilitic eruptions. The following are formulæ for some of the medicated baths usually employed:—

GELATINE BATH.

R. Gelatinii (*vulgo dicti "Size"*), . . . libras sex.
 Aquæ (Caloris gradu, 75° ad 92° F.) . congios triginta,
 Solve.

This bath is employed with excellent effect to allay local irritation and itching, and is especially useful in the cutaneous diseases in children. The temperature must be proportioned to the indications in each case. The

above are the quantities requisite for a bath for the entire body in the case of adults.

ALKALINE BATHS.

R. Sodæ Carbonatis,	uncias octo.
Aquæ Pluviæ (Caloris gradu, 84° ad 96° F.),	congiOS triginta. Solve.
R. Potassæ Carbonatis,	uncias sex.
Aquæ Pluviæ (Caloris gradu, 84° ad 96° F.),	congiOS triginta. Solve.
R. Sodæ Carbonatis,	uncias sex.
Boracis	uncias duas.
Aquæ Pluviæ (Caloris gradu, 75° ad 98° F.),	congiOS triginta. Solve.

These alkaline baths are often usefully employed as detergents of the surface when it becomes covered with thick crusts or adherent scales. They should be used with caution when any tendency to inflammatory action exists in the skin. They are also of service in chronic scaly eruptions, especially pityriasis, and in ichthyosis.

IODINE BATHS.

R. Iodi,	grana triginta.
Iodidi Potassii,	semi-unciam.
Glycerini,	uncias duas.
Aquæ (Caloris gradu, 86° ad 94° F.),	congiOS triginta. Solve.
R. Iodi,	grana sexaginta.
Liquoris Potassæ,	unciam ad uncias duas.
Aquæ Pulviæ (Caloris gradu, 86° ad 94° F.),	congiOS triginta. Solve.
R. Brominii,	minima viginti.
Iodidi Potassii,	uncias duas.
Glycerini,	unciam.
Aquæ (Caloris gradu, 86° ad 94° F.),	congiOS triginta. Solve.

Iodine baths are used in very chronic cutaneous eruptions, when there is much hypertrophy of the integuments. They may also be employed in aggravated cases of prurigo.

SULPHUR BATHS.

R. Potassæ Sulphuratæ,	uncias quatuor.
Aquæ Pluviæ (Caloris gradu, 86° F.),	congijs triginta.
	Solve.
R. Potassæ Sulphuratæ,	uncias duas.
Sodæ Hyposulphitis,	uncias duas.
Aquæ Pluviæ (Caloris gradu, 86° F.),	congijs triginta.
	Solve.

Either of these baths may be used in the treatment of chronic scaly diseases of the skin, but their efficacy is much inferior to that of the natural sulphurous mineral waters.

MERCURIAL BATHS.

R. Hydrargyri Corrosivi Sublimati,	grana centum et viginti.
Glycerini,	uncas duas.
Aquæ Pluviæ (Caloris Gradu, 96° F.),	congijs triginta.
	Solve.
R. Iodidi Hydrargyri rubri,	grana sexaginta.
Sodii Chloridi,	uncias duas.
Aquæ (Caloris gradu, 96° F.),	congijs triginta.
	Solve.

Mercurial baths are applicable for the treatment of obstinate syphilitic cutaneous diseases. They have also been used in very chronic scaly eruptions.

Cataplasms are employed chiefly to remove hardened incrustations, for which purpose those prepared with linseed meal, and smeared over with fresh lard or olive oil, are best adapted. But they are also very serviceable in allaying local inflammation or irritation; when used with this intention they should consist of white bread steeped well in hot water, then squeezed dry, and moistened with some cooling wash, as recommended before for the treatment of eczema and of herpes.

Caustics are used principally with the intention of destroying the affected integuments and arresting the morbid process in lupus; and their use in it has been spoken of in the description of the treatment of that disease. But many practitioners employ them also in the chronic stages of several cutaneous eruptions, with the view of exciting a new action in those portions of the skin on

which they may be seated; caustics have been thus used, especially in the treatment of the eruptive diseases of the scalp and in squamous affections; my experience of their effects, however, is not in accordance with the opinion of those who report favorably of their application. Besides nitrate of silver—which is the favorite caustic in skin diseases—chloride of zinc, and caustic potash, some practitioners use a strong solution of iodine, which may be prepared as follows:—

R. Iodi, grana triginta.
 Aquæ destillatæ, drachmas quinque.
 Iodidi Potassi, quantum sufficit ut fiat solutio.

The following formula for a compound caustic solution is contained in the Pharmacopœia of the London Hospital for Diseases of the Skin:—

R. Zinci Chloridi, semi-unciam.
 Antimonii Chloridi, grana centum et viginti.
 Pulveris Amyli, grana sexaginta.
 Glycerini, quantum sufficit.
 Misce.

Vienna paste is also frequently used. It consists of equal parts of caustic potash and unslaked lime; mixed for use with alcohol.

Dr. Burgess' bicyanide of mercury caustic consists of two grains of the salt to one ounce of water. He recommends it for acne rosacea; to be painted on the affected parts for a few minutes, followed by the application of cold water. Dr. Hillier uses a "biniodide of mercury caustic," composed of equal parts of red iodide of mercury and prepared lard; he also gives a form for preparing "chromic acid caustic"—100 grains to an ounce of prepared lard. Dr. Frazer uses "corrosive collodion," as may be expressed in this form:—

R. Collodii, drachmas duas.
 Hydrargyri Corrosivi Sublimati, grana sexdecim.
 Misce.

He also gives a very useful preparation, "glycerine with iodine." It may be thus expressed:—

R. Iodi, grana triginta.
 Potassii Iodidi, grana viginti.
 Glycerini, semi-unciam.
 Misce.

Whether caustics be resorted to or not in the treatment of diseases of the skin, they should never be used to the exclusion of other remedial measures.

Lotions, were it not for the difficulty of applying them effectually in many cases and on certain regions of the body, constitute the best form for using topical medication in the treatment of a great number of cutaneous eruptions. Their special application has been described when treating of the individual diseases in which they are to be used, and several formulæ for their prescription have been given. They are most readily applied by means of bandages kept constantly wet with them; but as this method is applicable for the extremities only, when the eruption is situated on any other portion of the integument, they may be applied on a double fold of old linen or lint, covered with a thin sheet of gutta percha, which is preferable for this purpose to oil-silk, as it does not keep the surface so hot, in consequence of its permitting a certain degree of evaporation. In the case of spirituous or other cooling lotions, neither covering is of course admissible, and then the linen or lint must be moistened with the wash as often as it becomes dry. The addition of glycerine to lotions is of especial service, as, in consequence of its non-evaporating properties, it keeps the part to which they are applied in a constant state of moisture; this is peculiarly useful as respects alkaline lotions, which tend to render the surface hard and dry—an evil that in many cases would counterbalance the good effects that might result from their employment. Independently of their use with the intention of producing a direct medical action, lotions and washes are also beneficially employed to cleanse the diseased surface, previously to the renewed application of ointments, and for this purpose they are applied by means of a sponge; or should the crusts or scales that form be hard and firmly adherent, a roll of lint wet with the wash may be brushed over the part. When the ordinary alkaline or lead lotions which are used for these purposes are found too irritating or astringent they will be advantageously diluted by adding to them an equal part of new milk. In addition to the formulæ for lotions which are cou-

tained in the several preceding chapters, the following may also be employed for the purposes indicated :—

STIMULATING ALKALINE LOTIONS.

- R. Liqueoris Ammonia, unciam.
 Glycerini, drachmas sex.
 Spiritus Lavandulae, drachmas duas.
 Aquae destillatae, uncias sex.
Misce.
- R. Liqueoris Ammoniae Sesqui-Carbonatis,¹ uncias decem.
 Glycerini, uncias duas.
Misce.
- R. Sodae Carbonatis, grana viginti.
 Spiritus Rosmarini, unciam.
 Aquae Rosae, uncias septem.
Misce.

These lotions are adapted for all eruptive diseases in which the external application of alkalis is indicated, when their chronic stage is attended with atony of the cutaneous surface.

SEDATIVE ALKALINE LOTIONS.

- R. Boracis, grana centum et viginti.
 Aquae Sambuci, uncias undecim.
 Aquae Lauro-Cerasi, unciam. Misce.
- R. Sodae Bicarbonatis, grana triginta.
 Aquae Aurantii, uncias undecim.
 Succii Conii, unciam. Misce.

Chiefly used in eruptive diseases of a dry nature, which are attended with much itching.

Hardy's sedative lotion, for use in lichen, prurigo, and pudendal irritation, is as follows :—

- R. Potassi Cyanidi, grana quindecim.
 Aquae, uncias octo.
Misce.

This should be kept in a dark place.

ANODYNE LOTIONS.

- R. Acidi Hydrocyanici diluti, . . . drachmas duas.
 Aquae Lauro-Cerasi, semi-unciam.
 Glycerini, uncias duas.
 Aquae Sambuci, uncias novem.
Misce. [Frazer.]

* ¹ Of last *London Pharmacopœia*.

- R. Spiritûs Chloroformi, uncias duas.
 Glycerini, uncias duas.
 Misce. [Frazer.]

GLYCERINE WASH.

- R. Glycerini, uncias duas.
 Misturæ Amygdalæ, uncias sex.
 Aquæ Rosæ, uncias octo. Misce.

ASTRINGENT LOTIONS.

- R. Tincturæ Acetatis Zinci (*Ph. Dub.*,
 1829), drachmas quatuor.
 Aquæ Rosæ, uncias octo cum
 semisse. Misce.
- R. Acidi Tannici, grana quadraginta.
 Aceti Gallici, semi-unciam.
 Aquæ destillatæ, uncias septem cum
 semisse. Misce.
- R. Creasoti, minima octo.
 Tincturæ Krameriæ, drachmas duas.
 Acidi Hydrocyanici, minima octo.
 Aquæ destillatæ, uncias quatuor.
 Misce.

In using this lotion the bottle in which it is contained should be well shaken before it is applied to the surface.

CAZENAVE'S ALUM LOTION.

- R. Aluminis, grana centum et viginti.
 Infusi Rosæ Acidi, uncias viginti. Misce.

DUPEY'S SULPHATE OF COPPER LOTION.

- R. Cupri sulphatis, grana sexaginta.
 Zinci Sulphatis, unciam cum semisse.
 Aquæ destillatæ, uncias viginti.
 Aquæ Lauro-Cerasi, semi-unciam. Misce.

For use in Sycosis.

SULPHUROUS LOTION.

- R. Sodæ Hypo-Sulphitis, semi-unciam.
 Potassæ Sulphuratæ, grana sexaginta.
 Aquæ destillatæ, uncias undecim cum
 semisse.
 Aquæ Lauro-Cerasi, semi-unciam. Misce.

STIMULANT WASH.

- R. Tincturæ Nucis Vomice, semi unciam.
 Spiritûs Camphoræ, drachmas duas.
 Essentiæ Carui (*Ph. Dub.*), drachmas duas.
 Aquæ destillatæ, uncias septem. Misce.

This last wash is sometimes a useful application in the chronic stages of lichen simplex, when the disease is very obstinate, of prurigo, and in inveterate psoriasis, provided there is no tendency to local inflammatory action.

Ointments, under which appellation I include cerates and pomades, are more generally employed than any other form for the application of topical remedies in the treatment of diseases of the skin; this is owing chiefly to the facility with which they can be used, and the readiness with which their strength may be increased or diminished—both matters of great practical convenience and utility; yet they have the disadvantages of being easily rubbed off, of affording but little protection to the diseased surface, and soiling the clothing with which they come in contact. In some cutaneous eruptions the application of any greasy matters disagrees remarkably, but this appears to depend, in the majority of cases, rather on some constitutional cause in the individual affected than in a specialty of the eruption which may be present; it also seems to be to a certain degree influenced by the region of the skin on which the disease is situated; thus, I have seen them prove injurious more frequently in the eruptions of the scalp than in those of any other part of the body. With affections which are accompanied by excessive serous discharge, as in most forms of eczema, they also, in my experience, generally disagree more than with any others. We can, however, seldom ascertain the existence of this peculiarity except by direct trial; but when it is once discovered to exist, the use of ointments should then be carefully avoided. Prepared axunge, in consequence of its greasy nature, does not, therefore, form a good basis for ointments to be used in the treatment of cutaneous diseases, except in cases attended with much hypertrophy of the integuments, as in ichthyosis, and in the chronic stages of some obstinate eruptions which are not accompanied by copious discharges; and the white wax ointment—which is employed for the preparation of nearly all the ointments contained in the last edition of the *Dublin Pharmacopœia*—is often not well adapted for this purpose in consequence

of its firmness and consistency.¹ I have, therefore, latterly used, in almost every case, either cold cream or the cucumber pomade of the French pharmacutists, as the basis of whatever ointment I prescribe; the latter preparation, as already remarked when speaking of the treatment of intertrigo, is in itself a useful local application, possessing calmative and healing properties. As formulæ for either of them are contained in but very few English works on *Materia Medica*, it will be well, I think, to give them here:—

CERATUM GALENI (*Cold Cream*).²

R. Olei Amygdalæ, uncias sexdecim.
 Ceræ Albæ, uncias quatuor.
 Aquæ Rosæ, uncias duodecim.

“Melt the wax in the oil with a gentle heat, in an earthen vessel; pour the mixture into a marble mortar, previously heated, and stir it constantly until it is nearly cold: then, by beating up the cerate briskly, incorporate with it the rose water, added in small quantities at a time.”

Yellow wax may be substituted for the white wax in hospital practice.

CERATUM CUCUMIS (*Cucumber Pomade*).³

R. Axungiæ, libras duas.
 Adipis Vituli (*Calf's Suet*), semi-libram.
 Liquefac simul, dein adde,
 Succu Cucumis Sativi, uncias viginti et quatuor.

“Mix and bruise them well with the hand; set aside for twenty-four hours; then pour off the juice, and replace it by a similar quantity of fresh juice, and repeat this process ten times, adding fresh juice, each time. As soon as the pomade has acquired a well-marked odor of the cucumber, melt it in a water-bath, and add an ounce of finely-powdered starch, which will combine with the water and precipitate it. Allow the entire to settle, and then pour off the pomade into small vessels. To render it more white and smooth the French pharmacians usually prepare it for use by melting again in a water-bath, and beating it for two hours, or even longer, with a wooden spatula; but when submitted to this treatment it does not keep fresh for a longer period than a month; while in the former case it will keep for a year, or even longer, in a cool place.”

¹ The “unguentum simplex,” of the *British Pharmacopœia*, is, to some extent, free from this objection to its predecessor—unguentum ceræ albæ.

² French Codex.

³ Henry and Guibourt—*Pharmacopée Raisonnée*.

I shall now append some formulæ, in addition to those already mentioned, for ointments which are ordinarily employed in the treatment of diseases of the skin. And first, I may mention that an excellent calmative ointment, especially useful in the cutaneous eruptions of children which are attended with heat and itching, may be prepared by substituting cherry-laurel water for rose-water in the above formula for cold cream.

SEDATIVE OINTMENTS.

- R. Chloroformi, minima sex.
 Cerati Cucumis, unciam. Misce.
- R. Carbonatis Plumbi, grana triginta.
 Cerati Galeni, unciam.
 Chloroformi, minima quatuor.
 Misce.
- R. Glycerini drachmam.
 Unguenti simplicis, grana tercentum
 et septuaginta.
- Chloroformi, minima octo.
 Cyanidi Potassii, grana quatuor.
 Misce.

The great advantage derived from the employment of chloroform, alone or in combination with other sedatives, as an external application in the treatment of cutaneous diseases, has been frequently referred to in the foregoing pages. In the preparation of ointments it should always be the last ingredient added, in consequence of its volatility, and for the same reason the ointment *should be dispensed in bottles* and not in boxes or pots.

ASTRINGENT OINTMENTS.

- R. Carbonatis Calcis præcipitati, . . . grana centum et
 viginti.
 Cerati Galeni, uncias duas.
 Extracti Belladonnæ, grana viginti.
 Glycerini, drachmas duas.
 Misce.
- R. Oxydi Zinci, grana viginti.
 Cerati Galein, unciam.
 Ticturæ Myrrhæ, semi-drachmam.
 Misce.
- R. Creasoti, minima decem.
 Adipis præparati, uncias duas.
 Pulveris Opii, grana octo.
 Misce.

- R. Carbonatis Plumbi, grana duodecim.
 Acidi Tannici, grana octo.
 Cerati Galeni, unciam. Misce.

CAMPHOR OINTMENT.

- R. Camphorærasæ et redactæ, grana octo.
 Tincturæ Conii Fructûs, drachmas duas.
 Unguenti Simplicis, unciam. Misce.

HEMLOCK OINTMENT.

- R. Fructûs Conii, in pulvere subtilissimo, . semi-drachmam.
 Unguenti Sambuci, uncias duas.
 Glycerini, drachmam. Misce.

A hemlock ointment thus prepared I have found very useful in allaying the painful sensations which attend on some forms of cutaneous eruptions.

Powders are used externally, chiefly in cutaneous diseases attended with copious serous discharge, as in eczema, and in these accompanied by marked local inflammatory action, as in erysipelas. They are applied to the surface by being shaken from a small bag made of fine muslin, and should be dusted over it pretty thickly. Whenever powders of different specific gravities are employed in combination for this purpose, they should be intimately mixed, and well shaken up each time before they are applied. Forms for different compound dusting powders have been given in the preceding chapters: the following will be found useful when an active astringent is indicated, as in the superficial ulcerations which result in some cases of pemphigus and ecthyma:—

- R. Krameriæ Pulveris, semi-unciam.
 Carbonatis Calcis præcipitati, grana centum et viginti.
 Amyli, unciam cum granis centum et viginti.
 Misce.

When dusting powders are employed, the affected parts should be cleansed every day, or every second day, by the use of gelatine or size baths, or by sponging the surface with equal parts of a weak alkaline wash and new milk warmed. This is not requisite in the treatment of erysipelas or of erythema, in which diseases their

efficacy, as has been before remarked, is partly due to their effect in excluding the air.

Soaps.—The use of ordinary soaps, as detergents, is seldom admissible in cutaneous diseases, in consequence of their irritant properties on the skin when it is at all inflamed, and they should, therefore, never be employed except in the chronic stages of the non-inflammatory affections in which there is no breach of the surface, and even then their effects must be carefully watched. In eruptions situated on the scalp, or on other regions of the body which are ordinarily covered with hair, I have almost invariably seen them productive of injury; and, moreover, in such cases the incrustations and scales which form are more easily and more effectually removed by the application of weak alkaline washes, as already recommended. The employment of medicated soaps in the treatment of eruptive diseases of the skin was at one time much resorted to, particularly on the Continent, and latterly their use has been revived by Sir Henry Marsh, who speaks in very high terms of their efficacy; but I must confess that, in the few cases in which I tried them, they did not produce any good result; nor is it likely that a soap should prove a good form for the application of remedies in the topical medication of cutaneous affections; for whatever substance constitutes the active ingredient of the soap is left but a short time in contact with the skin, being almost immediately washed off; and it would be very difficult to regulate its strength, as this must vary with the amount of water used each time in the application of the remedy. Sir Henry Marsh has recommended four different forms of soaps, which contain respectively sulphur, white precipitate, red precipitate, and corrosive sublimate, the first two in the proportion of a drachm, the third of a half a drachm, and the fourth of ten grains to the ounce. The formula for their preparation, which originated with Dr. W. D. Moore, of this city, consists in beating up in a marble mortar, in the above proportions, white Windsor soap and the active ingredient, with half a fluidrachm of rectified spirit, a few drops of oil of roses being added as a perfume.

The experience of several years, since Dr. Neligan

wrote the preceding remarks, must be held to qualify, to some extent, his statements as to the use of soaps. There can be no question as to the beneficial results from the use of *Hendrie's Dispensary Soap*; and the *Aix-la-Chapelle Juniper Tar Soap*, before referred to in this volume. In the *Dublin Hospital Gazette*, for 1859, p. 91, Dr. Wm. Moore, of this city, described the preparation of *Sapo Laricis*, which he found very useful in various skin affections—such as pityriasis, psoriasis, chronic eczema, and herpes. This soap is composed of 4 oz. of wheaten bran, 24 oz. of white curd soap, 3 oz. of glycerine, 6 drachms of extract of larch bark, and 12 oz. of rose-water. To the expressed liquor the glycerine is added. The mode of preparation will be found elaborately detailed in Dr. Wm. Moore's paper, above referred to.

Those remedies which are administered *internally* in the treatment of eruptions of the skin, with the view of acting generally on the system, require but little notice here, as they have been so fully described, and several formulæ given for their prescription, in the preceding chapters when treating of the individual diseases.¹ The chief point to be kept in view in the constitutional treatment of cutaneous eruptions, one which has been before referred to, is, that they require, in most cases, a prolonged administration of the remedy which may be employed, and that, consequently, it should be given at first in rather small doses, and its strength increased afterwards very gradually and slowly. Dr. Neligan held that this is especially evident with respect to those powerful alteratives, arsenic and iodine, which are such valuable agents in these affections, yet often produce injurious consequences by exciting local irritation, and a tendency to local inflammatory action, from being given at first in too large doses; the same holds true of cod-liver oil and of many other medicines which are of daily use in the therapeutics of diseases of the skin.

Notwithstanding the above opinion of Dr. Neligan

¹ The reader will find references to the principal prescriptions in the General Index.

with regard to the administration of arsenic in gradually increasing doses, the Editor is convinced that it is better administered by not giving large doses at any time; but by beginning with the largest dose intended to be given, and continuing the same, unless it should appear desirable either to diminish or discontinue it.—See also Hunt *On Diseases of the Skin, in loc.*; and Cummins *On the Use of Arsenic—Dub. Qu. Journ.*, Nov. 1864.

During the employment of any of these remedies their administration should be occasionally omitted for a day or two, whether they cause constitutional manifestations of their effects or not, and the bowels freely acted on by purgatives, those of a saline nature being preferred if the patient's strength admit of their use.

The following formulæ may, in addition to those already given in the preceding chapters, serve to aid the practitioner in prescribing the medicines which are ordinarily used in the treatment of this class of affection:—

DIAPHORETIC PILLS.

- R. Antimonii Oxidi, grana nonaginta.
 Morphiæ Hydrochloratis, granum cum semisse.
 Confectionis Rosæ, quantum sufficit ut fiant pilulæ, viginti et quatuor.

Sumat duas sextis horis.

- R. Antimonii Sulphurati, grana sexaginta.
 Pulveris Ipecacuanhæ cum Opio, grana sexaginta.
 Guaiaci Resinæ, grana centum et viginti.
 Theriacæ, quantum sufficit ut fiant pilulæ sexaginta.

Sumat unam sextis horis.

ALKALINE MIXTURE.

- R. Liquoris Potassæ, semi-unciam.
 Infusi Dulcamaræ, uncias undecim.
 Tincturæ Chiratzæ, semi-unciam. Misce.

Sumat unciam fluidam ter indies.

ALKALINE CATHARTIC DRAUGHT.

- R. Solutionis Alkalinæ (Brandish), . . . drachmam.
 Potassæ Sulphatis cum Sulphure,
 (Ed. Ph.), grana nonaginta.
 Aquæ destillatæ, uncias duas.
 Tincturæ Aurantii, drachmam.

Misce. Fiat haustus, primo mane ante jentaculum sumendus.

DIAPHORETIC MIXTURES.

- R. Tincturæ Guaiaci Ammoniatæ, . . . drachmas duas.
 Mucilaginis Tragacanthæ, . . . drachmas sex.
 Misturæ Amygdalæ, . . . uncias tres. Misce.
 Sumat unciam sextis horis.
- R. Sarsæ, . . . unciam cum semisse.
 Aquæ destillatæ ferventis, . . . octarium.
- Per horas duodecim in vase clauso macera, subinde agitans, dein cola, et
- R. Hujus infusi, . . . uncias duodecim.
 Infusi Sassafras,¹ . . . unciam cum semisse.
 Decocti Mezerei (*Ph. Dub.*), . . . unciam cum semisse.
 Syrupii Hemidesmi, . . . unciam. Misce.
 Sumat uncias duas fluidas ter quaterve indies.

ALTERATIVE MIXTURES.

- R. Hydrargyri Bromidi,² . . . semi-granum.
 Infusi Dulcamaræ, . . . uncias octo. Misce.
 Sumat unciam fluidam ter indies.

This preparation may be administered in obstinate cases of secondary syphilitic eruptions; in its action it is nearly allied to the red iodide of mercury.

- R. Hydrargyri Iodidi Rubri, . . . grana quinque.
 Spiritûs Vini rectificati, . . . drachmam.

Tere simul dein adde.

- Aquæ destillatæ, . . . unciam cum semisse.
 Iodidi Potassii, . . . grana centum et viginti.
 Syrupi Aurantii, . . . semi-unciam. Misce.
 Sumat guttas viginti ter indies in cyatho vinoso infusi Sassafras.

This is a preferable form to that of a pill for the administration of the red iodide of mercury in venereal eruptions.

- R. Ferri Bromidi,³ . . . grana sexaginta.
 Liquoris Arsenicalis, . . . minima sexaginta.
 Syrupi Aurantii, . . . semi-unciam.
 Aquæ Aurantii, . . . unciam cum semisse.
 Misce.

Sumat drachmam fluidam ter indies in cyatho vinoso decocti corticis Ulmi recentis.

¹ Vide Macnamara's (Sixth) Edition of *Neligan's Medicines*, &c., p. 248.

² Vide *Neligan's Medicines*, &c. (*op. cit.*), p. 128.

³ Vide *op. supra cit.*, p. 640.

A useful form for the administration of arsenic in chronic cutaneous eruptions, attended with anæmia or much debility.

The publication of the *British Pharmacopœia*, since the appearance of the first edition of this work, has rendered necessary a very material alteration in the mode of expressing the numerous prescriptions scattered over these pages. These prescriptions have been translated into the existing language of officinal pharmacy, except where (chiefly owing to their being quotations) such was impracticable, retaining, of course, the essential identity in every case. With two or three exceptions, which sufficiently explain themselves, the directions for use have been put into Latin, as the Editor thinks they should be. The system of writing names and quantities in Latin and the directions in English he entirely disapproves of, on the grounds that, irrespective of its being unworthy of an educated man, it is a sop thrown to ignorance, and that by encouraging ignorance in a learned profession it directly tends to promote the evils which the writing of directions in English is intended to prevent.

Some men, whose scholarship is above reproach, deliberately adopt the plan here objected to for special reasons, as in the case of a friend of the Editor, who does so in order to impress the directions on the friends of the patients with whom the prescription is left. With many, however, it is the result of ignorance; a large number could not, if they would, express their directions in Latin, while a still larger number conceal the weakness of their Latinity under abbreviations and symbols, the use of the latter being altogether illegal in Ireland. The present confusion respecting the use of symbols should be set at rest by loyal obedience to the statute law, which provides thus: "And in order to prevent the uncertainties and dangers which may attend the setting down the quantities of medicines in chemical and numeral characters, in prescriptions, be it enacted by the authority aforesaid, That every physician, chirurgeon, or other person or persons, who now do, or hereafter shall, take upon him or them to prescribe internal or external remedies for the health of man's body in this kingdom, shall hereafter set down the

quantity or quantities of all and every medicine or ingredient, whether simple or compound, which he or they shall prescribe in any *recipe*, *formula*, or prescription, in words at length, and not in chemical or numeral characters, under the penalty of forty shillings for every such omission."—Stat. 1, Geo. III, cap. xiv, sec. 19 (Lucas' Act), made perpetual by 30 Geo. III, cap. xlv, sec. 11. For a more full discussion on this subject the Editor may refer to a paper of his in the *Dublin Quarterly Journal* for Aug. 1864, entitled "Brief Considerations respecting the Weights and Measures, and the Nomenclature of the Pharmacopœia."

Inasmuch as the pharmaceutical revolution caused by the appearance of the *British Pharmacopœia* renders a clear understanding of the doses of some important medicines imperative on the practitioner, the editor appends a posological table compiled from that in Professor Macnamara's valuable sixth edition of Dr. Neligan's well-known work *On Medicines*:—

POSOLOGICAL TABLE.

MEDICINE.	DOSE FOR AN ADULT.	FORM OF ADMINISTRATION.
Acidum Hydrocyanicum Dilutum, .	1 to 2 minims, .	In draught or mixture.
Ammoniaë Arsenias, .	$\frac{1}{12}$ to $\frac{1}{15}$ of a grain, .	In pill or solution.
Arsenici Iodidum, .	$\frac{1}{10}$ to $\frac{1}{4}$ of a grain, .	In pill.
Arsenicum Album, .	$\frac{1}{16}$ to $\frac{1}{8}$ of a grain, .	In pill.
Creasotum, .	1 to 5 minims, .	In draught or pill.
Ferri Arsenias, .	$\frac{1}{12}$ to $\frac{1}{8}$ of a grain, .	In pill or mixture.
Ferri Iodidum, .	2 to 5 grains, .	In pill.
Hydrargyri Iodidum rubrum, .	$\frac{1}{16}$ to $\frac{1}{8}$ of a grain, .	In pill.
Hydrargyri Iodidum viride, .	1 to 3 grains, .	In pill.
Hydrargyri Iodo Chloridum, .	$\frac{1}{16}$ to $\frac{1}{12}$ of a grain, .	In pill.
Hydrargyri Oxydum Rubrum, .	$\frac{1}{4}$ to $\frac{1}{2}$ a grain, .	In pill.
Liquor Arsenicalis, .	2 to 8 minims, .	In draught or mixture.
“ Arsenici Chloridi, .	3 to 10 minims, .	In draught or mixture.
Liquor Arsenici et Hydrargyri Hydriodatis, .	10 to 30 minims, .	In draught or mixture.
Liquor Sodæ Arseniatis, .	3 to 10 minims, .	In draught.
Potassi Iodidum, .	3 to 15 grains, .	In draught or mixture.
Quiniæ Arsenias, .	$\frac{1}{10}$ to $\frac{1}{4}$ of a grain, .	In pill or mixture.
Sodæ Arsenias, .	$\frac{1}{12}$ to $\frac{1}{8}$ of a grain, .	In pill or draught.

Hygienic Treatment.—Before concluding, a few words are requisite as to the hygienic measures best adapted for cutaneous diseases. As a general rule, the diet must be, of course, regulated according to the individual requirements of each case; but as these affections are usually evidences of constitutional debility, though so frequently attended with a tendency to local inflammatory or irritative action, it should be nutritious, but not stimulating. Restriction to an almost purely milk and farinaceous diet is attended with the best results in the majority of instances, and should be almost invariably enforced with infants and children. Change of air to a dry, elevated position, is often of great service, but extremes of cold and heat should be avoided as much as possible. For the

latter reason, the surface of the body should be kept as far as can be of a uniform temperature by attention to the clothing worn, which, however, should never be such as to check the insensible perspiration, or tend to condense it on the integuments. That worn next the skin should be soft and unirritating, and therefore woollens should be avoided, soft calico or silk being preferred for under-clothing. In referring to change of air I wish to record it as the result of my experience, that a residence at the sea shore usually proves injurious in cutaneous eruptions, the fine saline particles which float about in the atmosphere appearing to aggravate the disease by exciting local irritation; the climate of those districts which are situated a short distance inland is, however, well adapted for persons afflicted with them.

Great objections are often raised to the cure of cutaneous eruptions, particularly those which are attended with a copious secretion, more especially if they have been of long existence, for fear of their sudden removal, or the stoppage of the discharge with which they may be attended, causing some grave internal disease; but I have never seen any ill consequences result when they were removed by constitutional treatment, not even in the case of infants or children who may be teething; on the contrary, I have invariably witnessed the general health to be much improved in all respects thereby; but the sudden cure by the employment of topical remedies only, such as caustics or powerful astringents or stimulants, is certainly not advisable unless the eruption is of small extent and has been of short duration.

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